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APR. 1948

THRILLING AND WONDER STORIES

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A THRILLING
PUBLICATION



The Faceless Men

A Complete Novel
By ARTHUR LEO ZAGAT

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GEORGE O. SMITH
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Vol. XXXII, No. 1

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COMMENCING with this issue, **THRILLING WONDER STORIES** will have that "new look." Thirty-two additional pages! Twenty thousand additional words! Larger, more readable type! At last we have been able to jump the hurdles of paper restrictions, production bottle-necks, and other limitations imposed by the late unpleasantness and its aftermath—and we bring you, now, a 148-page magazine dedicated to the best in science fiction and fantasy!

Our companion magazine, **STARTLING STORIES**, has already undergone a similar enlargement. For you loyal fans who regularly scan both magazines, that means a considerable increase in reading matter. We know that the change will be approved by all of you—for at least one out of three of the letters we have received in the past few years has suggested ways and means of making us bigger. Well, here it is—148 pages instead of 116!

In coming issues, **TWS** will have better balance, greater variety, and will give every reader more opportunity to find his or her favorite type of science fiction story. Also inaugurated will be new and attractive typographical improvements which will become more apparent in succeeding numbers.

With the increase in quantity will come a like increase in quality—for in the past we have been forced at times to dole out the ablest authors in small doses.

But with an inventory at hand that includes top work by such authors as Henry Kuttner, George O. Smith, Arthur Leo Zagat, Edmond Hamilton, Leigh Brackett, Murray Leinster, the De Courceys, Frank Belknap Long, Margaret St. Clair, Carl Jacobi, John Russell Fearn, James Blish, Fredric Brown, Ray Bradbury, William S. Temple, William Tenn, Noel Loomis and Jack Vance—and with more stories by these and other able

practitioners constantly coming in—we have a lineup of material and ideas that could easily fill twice as much added space. For a five-cent upping in price, you will get far more than your nickel's worth.

We are confident that this augmented magazine will now please you more than ever. And we are impatiently awaiting your comments!

Note on Human Adaptability

AT a recent meeting of the American Philosophical Society in Philadelphia, Professor Wallace O. Fenn of the University of Minnesota made a statement which will, if supported by facts in the field, have a great effect upon the possibility of human survival in alien atmospheres.

Said Professor Fenn:

"Experiments on animals and observations on man lead to the conclusion that, if a man were hermetically sealed in Grand Central Terminal so that no fresh air could get in and he would have to rebreathe increasingly higher concentrations of his exhaled air, he would make satisfactory adjustments to the situation so that he could live under these conditions for twenty years.

"Not only would the man make internal adjustments but, if he arranged to rear a family in Grand Central during the experiment, he would find that, at the end of the test, his children would be unable to live in the outside fresh air."

The speculations that Professor Fenn, by his statement, gives rise to are irresistible to anyone who thinks in terms of possible future travel to other planets. From them it seems highly probable that the first travelers to attempt life upon, say, Mars or Venus, would have an uncomfortable time but that

(Continued on page 8)

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THE READER SPEAKS

(Continued from page 6)

descendants of these pioneers would gradually become adapted to the alien atmosphere.

More important, these descendants, returning to the parent planet of Earth, would face the same problem of adjustment faced by their fathers or grandfathers. Contact between human residents of the various planets would therefore of necessity be a short-term and uncomfortable business.

However, human ingenuity being what it is, it seems probable that areas on each planet will have to be set aside which reproduce the atmospheric conditions of their neighbors. And ultimately children reared in several such atmospheres will perhaps become poly-atmospheric just as children today, brought up in several countries or by foreign parents, can switch languages at will.

Perhaps in time some type of human will be produced that can exist with something approaching normality even upon the ammonia atmosphere of Jupiter, greatest of the sun's satellites. The possibilities are endless.

So, once again, we can marvel not only at the universe but at man, who may yet fulfill his qualifications as at least a minor wonder of that universe. And, once again, we can see the writing on the wall which proclaims that another dream of science fiction writers may be on its way to realization.

Jules Verne's Nautilus has long since been surpassed by modern submarines and his rocket to the moon is almost here. H. G. Wells' atomic bomb is, alas, already with us and, according to horticulturists, his "food of the gods" is on the way. Now that great school of more modern writers, commencing perhaps with Dr. E. E. Smith and his Skylark series who, accepting the fact of interplanetary travel, began to speculate upon its difficulties and to seek problematological solutions to them, may find their speculations turned to fact.

(Continued on page 10)

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THE READER SPEAKS

(Continued from page 8)

Those who insist that science fiction has fallen behind science underrate the power of creative human imagination. They belong, we fear, to the "what-is-there-to-invent" school of thought that has been with us since the cave man first invented the slingshot.

OUR NEXT ISSUE

GEORGE O. SMITH takes over the novel for the June issue with one of the most brilliant and stirring stories to emerge from the Smith typewriter in a long long time, **THE TRANS-GALACTIC TWINS**. This is the story of Barry Williams, who, on the eve of making the first inter-spatial trip in the *Star Lady*, suffers a street accident from contact with a trailing live wire and awakens to find himself inhabiting another body on an utterly strange planet in an utterly unknown galaxy.

It is also the story of Johntha, brilliant young scientist of this strange planet, who has been experimenting with space flight through far more advanced metaphysical methods and has, thanks to his own experiments and Barry Williams' accident, waked up upon Earth in Barry's damaged body.

Thus each young man finds himself in a world where not only his words but his thought is incomprehensible. Each faces the charge of insanity and each, operating through symbols which at first seem only deeper proof of mental imbalance, must obtain credence and freedom to do the other's work.

Furthermore, Johntha has a sister, Vella, who is devoted to him—so devoted that Barry Williams, inhabiting Johntha's body, finds himself facing an impossible dilemma. Mr. Smith has combined these fine elements of dramatic conflict with a brilliant exhibition of pseudo-scientific pyrotechnics that promises to have our more mathematically-minded readers working overtime on their scratchpads.

Two novelets are scheduled to accompany the **TWINS**, the first of them an uproariously stimulating satire by William Tenn entitled **CONSULATE**. In **CONSULATE** the early expeditions to Mars and Venus have re-

(Continued on page 123)

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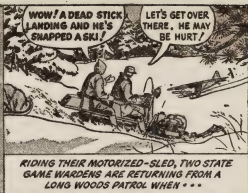
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... AND THEN DAN SAVED THE DAY



Brad heard Joan's
voice and swung to
the window
(CHAP. IX)



THE FACELESS MEN

CHAPTER I: *Mighty Blue*

BRAD LILLING pretended to be engrossed in the illuminated logtape that flowed across his desk top under translucent plastic. Actually he was acutely conscious of the footfalls coming toward him across the wide leadstone floor from the gauge bank.

"No," he groaned inwardly. "Not again." And then, "If he doesn't lay off me I swear I'll turn him in to the Espee."

But Brad knew he would not report Starl Kozmer to the Security Police. He knew

A Novel by ARTHUR LEO ZAGAT

Hunted by the authorities as well as by those who conspire against them, Scientist Brad Lilling alone can save Earth's cities from entombment and death!

the strength of the tie that binds all atomicians in a brotherhood rooted in the unremitting peril of their craft.

Kozmer wore the badge of the brotherhood where all could see—the purple ray burn that blanked out the right side of his face, which left only a lashless slit where an eye should be and cut a lavender swath through his white mane. Brad himself was thus far unmarked as were most of the younger men on the Station.

Protective devices had been vastly improved since Starl Kozmer began his long service but even yet, now and then, workers vanished from among them—to a lead-lined grave or, which was worse, to the Custodial Colonies that were spoken of only in whispers.

Brad saw the aged atomician's burn reflected in the milky-white plastic of his desk top, saw the other side of Kozmer's face reflected—hollow-cheeked, netted with wrinkles. A profoundly disquieting face, but unwavering graph lines gave the younger man no excuse not to look up and ask tonelessly, "Well, what is it?"

"I'd like to suggest, Mr. Lilling, that Pile Two be shut down for overhaul. Yes"—the old gaugeman answered the lift of Brad's eyebrows—"Yes, I know it sounds off beam, sir. Temperature and radiation remain constant, power output steady."

He was talking for the sonowire that recorded for Espee ears all they said but his gnarled fingers were flashing a different message. *How about it they demanded in the code all 'prentice atomicians learn serving their time in the thundering pits. Make up your mind to throw in with us?*

"Still," he said aloud, "I've a hunch she's getting ready to spit," while his fingers warned, *Time's getting short.*

Time be blasted. Brad's own fingers answered and the irritation was in his spoken reply.

"You've a hunch, have you? If you'd only get it into your head that we stopped running the piles by hunch years ago you might rate something better than third grade tech."

I'm not saying yes or no till I know a lot more about what you plan than you've told me.

I've told you all I dare. "Yes, sir. I guess you're right, sir. I keep forgetting things are different from when I was in my twenties like you." *There's some think you already know too much.*

Brad Lilling knew only that, for months, the old man had been urging him to join some shadowy revolt that shaped darkly beneath the placid-seeming surface of routine.

It seemed incredible that anyone should wish to return to conditions as they were before Decade Crossroads. The world in those days, Brad had been taught, was a chaos of artificial national boundaries.

Continual tribal bickerings flared every so often into mass slaughter and between these "wars" life was hag-ridden by suspicion and fear. Many of the world's peoples teetered eternally on the brink of starvation, all lived in constant apprehension of recurrent and, so it seemed to them, inevitable famine and pestilence.

In four generations under the rule of the Scientists there no longer was any war, any want, any disease, any fear.

TODAY the race was a single Earth-encompassing economic machine of which every individual was a cog matching perfectly with every other, serving and being served by the whole. Every child at birth was assayed for his innate aptitudes, then was trained toward its optimum development.

When finally fabricated he was fitted into the precise sub-part of the exact sub-assembly for which he was designed. Thereafter he performed his assigned function for the requisite few hours in each twenty-four, was free to spend the rest as he pleased so long, naturally, as he did not spend them in such a way as to impair his efficiency.

He was housed, clothed, fed and provided with every facility for the recreations of his choice. When, because of age, or accident not his fault, he no longer was capable of serving the machine, he was retired but his way of life remained otherwise unchanged.

If unavoidable accident terminated his usefulness he was given tender care and every luxury of which he could avail himself in a Custodial Colony graded to his special case. What more could any reasonable being desire?

Yet there were those who, like Kozmer, chafed at what they called "regimentation" and prattled glibly of such discredited concepts as 'the inherent dignity of man.' More incomprehensible were those who grumbled at 'the special privileges the Scientist class' have arrogated to themselves.'

Was it not the Scientists who had created the cheap, limitless and inexhaustible power-source on which this whole new civilization was based? Faced with the alternative of self-annihilation, had not the people themselves voluntarily entrusted them with the sole control of Atomic Energy, its productions and all its uses?

It had not been by the Scientists' desire that, as these uses penetrated more and more aspects of human life, they were compelled to assume wider and wider authority until, inevitably, there had been forced upon them the absolute autocracy with which they now were burdened.

To argue that they held this dominion only because they controlled the weapon against which there was no defense was to beg the issue. The point was that their very monopoly of this weapon had laid upon them the awful load of responsibility for the welfare of all mankind.

Thus had run for months Brad's debate with the aged atomician whose single eye was fixed now so balefully upon him. Kozmer had been able to offer no logical rebuttal and yet—

And yet something, some doubt beyond logic, had kept Brad from returning an unequivocal no to the proposal that he join the plotters. *Better decide fast, Brad Lilling, the old man's fingers warned. It's later than you guess.*

"I'm sorry I bothered you, Mr. Lilling," he said aloud. "I guess I'm just an old fool."

"Very well, return to your post."

Because the right half of his mouth did not move, its nerves obliterated by the ancient ray burn, Starl Kozmer's smile was twisted and horrible. A vein throbbed in Brad's temple as he watched it turn away from him, then his eyes dropped to the log-tape. His hand leaped to a stud at the desk's edge! A red graph line had jagged suddenly to indicate a jump in Pile Five's radiation. If it wasn't checked. . . .

The graph-line smoothed. Lilling's hand fell away from the button that would have shunted in all the pile's blockbars to shut it down and he nodded approval at the gauge-man whose shifting levers had quenched the flare before that had become necessary.

An automatic control had failed but the first of the two man-checks had not. No atomician ever permitted himself to contemplate what would happen if some day, on some one of the piles, all three safeguards



In the swirling mists the men he saw had no faces
(CHAP. IV)

should fail together.

The crisis over, it was very quiet in the high-ceiled, spacious control room. Except for the barely perceptible tremor of the floor beneath Brad's feet there was no sign that, in this remote place, Man precariously harnessed the fires of creation itself to power his ultimate civilization. He glanced at the clock dial above the gauge banks. It still lacked thirty-four minutes of shift-change.

Then why was the wall at the room's other end slitting?

The panel slid open, slid noiselessly shut again. The two who had entered wore the lead-cloth protective suits required everywhere on the Station. Here, so far above the piles, the hoods were lumped clumsily behind their heads.

One was Jon Porsen, the heavy-jowled Station Director. The other's back was turned to Brad as they paused down there, chatting. Not very tall, the stranger was so slender that his suit hung shapelessly about him but there was about him a quality of vibrant grace unusual in these precincts.

UNUSUAL too and vaguely disturbing was the deference evident in the Director's gestures, in his very stance. His rating the highest to which a Technist could aspire, Porsen was arrogant with his inferiors, pompous with his equals, obsequious only to Scientists. For a Scientist to be visiting the Station implied something momentous in the wind.

The visitor laughed. It was a tinkling, silvery sound. It brought from Brad an exclamation of surprise, quickly stifled but not quickly enough. The stranger heard it, glanced around, then turned and looked straight at him, the heart-shaped outline of her small face framed by carelessly tossed, honey-hued ringlets.

Hot with embarrassment, Brad stared down at his logtape. What was a girl, Scientist or not, doing on the Station? They were coming toward him. Footfalls neared and a pulse-stirring perfume drifted across his nostrils.

"Technician Lilling," Jon Porsen snapped. Brad jumped up to attention, stared into a pair of incredibly blue eyes in which tiny stars danced.

"Miss Arlen," the Director was saying, "is inspecting the Station and has asked that you act as her guide."

"Mr. Porsen has been very kind," The

girl's throaty voice did unexpected things to Brad. "But I don't think I ought to keep him from his important duties." The corners of her mouth quirked with some covert amusement. "I'm sure you can explain things almost as well."

"Yes, Miss Arlen." Brad gasped as the name penetrated his daze. Arlen. No wonder Porsen was overawed. Gar Arlen was the all-powerful Administrator of Region Three, the globe's northwest quadrant, and this must be his daughter, Joan. "I'll try, miss."

"You may start now," Porsen said. "I shall myself take over your post here until Personnel can send down a relief Control-master."

"Yes, sir. Very good, sir." Somehow Brad was out from behind his desk and stumbling toward the opposite end of the room with the girl beside him. They reached the wall. It opened, closed again to shut them into a small square space, low-ceilinged and seemingly without other exit. The girl was laughing again.

"Oh, dear," she bubbled. "Porsen did look so funny when I said I'd rather have you show me around. He looked just utterly deflated."

"Yes, Miss Arlen."

"He'd been working so hard trying to impress me with how wonderful he is—so I'd tell father, naturally. And I kept wondering how he'd feel if he knew I won't dare tell Dad I was ever within a hundred miles of this place."

"Huh!" Brad exclaimed, staring. "You won't dare—" He remembered who he was and what she was. "Yes, miss," he tried to cover up his faux pas. "Of course, Miss Arlen."

"Of course what?" she demanded.

"Of course you—your father— Oh, Jehoshaphat!" he groaned. "I give up. Why won't you dare tell your father you've been on the Station?"

"Because my bodyguard said it was too dangerous and so I had to slip away from him. He won't tell Dad because he'd be in trouble if he finds out he lost track of me but he would find out if I told him, so I can't tell him because I don't want to get him in trouble. Now do you understand?"

"I—I guess so." What she'd said sounded as if it made sense. Maybe it did if you could get it disentangled. "Do you Scientists always go around with bodyguards?"

"Oh, no." Those wonderfully blue eyes

of hers rounded. "Only the last three or four months. It's an awful nuisance too," she confided. "Would you like to have an Espée agent, even one who worships, you, tagging around after you all the time?"

"I don't think I would."

AT THE back of Brad's mind there was the thought—it's just about three months since Kozmer started plaguing me. And then his scalp was tightening with the thought—He knows she's on the Station without her bodyguard.

"Look," he ventured. "Maybe the guy had something at that. This certainly isn't the safest place to be wandering around. Don't you think you ought to give it up?"

"I do not." Her eyes suddenly were the pale blue of ice, her voice cold and curt. "You're wasting time, Technician Lilling. Please follow your instructions or turn me over to someone who can."

"As you wish, Miss Arlen." Wooden-faced, Brad gestured to the aperture opening behind her. "Do you mind stepping out?"

"I do mind," she clipped, her lips white with cold fury. "That's the way we came. I do not wish to return to the control room."

"I understand that, Miss Arlen." A muted roar flooded in as the door widened. "We are five hundred feet below it, at the base of the piles and at the level of the pits where the water that cools them is deradiated."

"The flow-fall," Brad droned on, "is converted by turbo-generators into electromotive force sufficient to operate all auxiliary services of the Station itself. The generators have a full-load capacity of better than three hundred fifty thousand kilowatts but this is trifling in comparison to the energy produced by nuclear fission and powercast from here. That amounts annually to one trillion, four hundred fifty-nine billion—"

"Stop it!" Joan Arlen stamped her foot. "Stop throwing those fool figures at me!" She still sounded irate but the corners of her mouth were twitching. "You know darn well they don't mean a thing to me." Abruptly the little lights were dancing in her eyes again.

"You know, Technician Lilling, you're rather nice-looking when you're angry. You pull yourself up straight and tall and your orange hair sort of bristles and your eyes aren't brown any more but so dark they're almost black. Shall we start all over again,

Tech— Or, bother! What's your first name?"

"Brad. And my hair isn't orange."

"All right, it's auburn." Her sudden smile was like sunlight, bright and warming. "What do you say, Brad? Friends?"

"Suits me." She was a brat, he told himself, but she was okay. She couldn't help going high-hat, the way she was brought up, but underneath she was real. "Let's go," he said and added, greatly daring, "Joan."

No lightning struck. Outside the lift a narrow passage stretched straight ahead between towering, gray metal walls toward the source of the muffled thunder. Another corridor crossed it just there at right angles.

"We're at the base of the plutonium piles."

Brad explained. "This is Number One on our right, Number Two on our left and eight others are lined up ahead there. You'd better pull up your hood. The piles are sheathed in fifteen feet of lead but there's always a possibility of stray radiations. Here, let me show you how."

Helping her adjust the black hood with its goggled mask, his fingers brushed hers and an electric tingle prickled up his arms.

"The piles are worked from the level above this," he continued, a bit breathlessly. "That's the heart of the Station but there isn't anything impressive about it, so I thought I'd show you the pits first. They're really something. You'll see a whole river pouring five hundred feet in a foaming cataract."

"How exciting!" she said. Brad pulled his own hood over his head, was momentarily blinded. When he could see again, Joan was already thirty feet away between the piles, had stopped to look up at a towering wall.

"Hey! Wait for me." He snapped his collarband shut—turned at a shout from his right.

Far down the transverse passage a hooded worker repeated it. "Message for you."

"Wait there, Joan," Brad called again. "I'll be right back." Starting down the side-wall, he wondered what possible message would follow him down here. Had Gar Arlen learned that his daughter—

A sudden blue light laid his shadow on the floor ahead of him! He wheeled, went cold as he saw that the lead wall, there beyond the passage where he'd left the girl, was imbrued with a blue glow which was swiftly brightening.

Training and panic screamed to Brad to flee the lethal rays which could strike

through his protective suit as though it were tissue. But he launched into a fear-winging run toward it, his throat locking.

CHAPTER II

Ten Seconds to Murder

HE SKIDDED around a pile corner, saw Joan Arlen gaping up at an azure-lighted wall, wholly unaware that she was bathed in death. He reached her, scooped her up in his arms without stopping. She screamed, pounded his chest with furious little fists but he ignored them, let out a great shout.

"Aid!" Strategically placed mikes would pick it up. "Ray Aid!"

Joan went limp. "What—" she gasped. "What's happened?" A far-off siren wailed. Brad glanced back, saw that they were well past the flaring wall and that the glow already was fading. He slowed to a dog trot.

"What is it, Brad?"

"Oh, just a little split from Pile Two." Pile Two! Starl Kozmer's pile. "You'll be all right." Kozmer's hunch had been for the record all right, the record of a murder alibi. Since the flare could be controlled, he should have controlled it long before it went high enough to penetrate fifteen feet of lead.

"You got quite a dose, Joan, but—" A siren's scream drowned the rest as an Aid scooter screamed up to them, spun in the passage and braked.

The medic, ungainly in lead helmet and body armor, watched Brad put Joan into the little car's back seat, get in himself. Then the scooter was in motion again. Gray walls blurred with their speed, vanished. They shot across a topless cavern shuddering with pit-thunder, leaped at a wall and into a sudden aperture at its base, spiralled upward.

The driver lifted off his hood. "How long?" he grunted.

"She got more than I did." Brad had stripped off his own hood, got to work on Joan's. "About ten seconds, not much over."

"You'd better pray it wasn't any over," the medic commented dryly. "You'd better pray it was under. Ten's about all the exposure we can neutralize." Steering with one

hand, he scratched the tip of his freckled nose with the forefinger of the other.

"Over ten, the best we can do is keep you full of dope so you'll pass out as easy as possible, which ain't too easy at that."

Brad felt a little hand creep into his and tighten. It was cold, trembling. She knows, he thought. She knows that ten seconds is only my guess and now she knows what it means to her if I've underguessed.

"You came back for me," she whispered. "You could have been safe but you came into the rays to try and save me."

The scooter was slowing. Men were running to meet it.

They rushed Brad Lilling off into a cubicle, walled and ceiled and floored with tiny round lenses that emitted no visible light. They stripped him naked and told him to lie down on a cot formed of some oddly resilient, transparent plastic. They told him it would be forty-eight hours before they would know if the emanations from the lenses would be effective or if the effects of the gamma rays on his body cells had gone too far for them to neutralize.

And then they went away and left him there, alone, to think.

BRAD thought bitterly that if he had not been called away to take that message he would have spotted the first faint beginning of the glow in Pile Two's sheath and so could have saved Joan Arlen a few crucial seconds of exposure.

He recalled that the worker who'd called to him had not come to meet him, and not even waited for him but had vanished the instant Brad started toward him. It dawned on him that the message had been a phoney, designed to pull him away from the flaring pile and leave the girl to take the death-dealing radiation alone.

Not to pull him away. Save for Joan's whim up in the control room, Jon Porsen would have been her guide. Brad had already been masked in the hood compulsory on that level. It was odds-on that the 'message-bearer' had not realized the switch. Porsen then was in on the plot. He was to have spotted the girl beside Two and left her there while the third assassin signalled Kozmer to pull the lever that would start the spit.

It had been shrewdly contrived. No one ignorant of the incipient rebellion would dream the murder try was anything but an

accident—and no one who did know would say anything about it, not even Brad.

His failure to report Kozmer's overtures as soon as they began was in itself a crime for which the punishment would be certain, swift and merciless. He dared not go to the Espee with his story—unless the doctors told him he was doomed to die. Then he could. Then it wouldn't matter.

But suppose he lived and Joan Arlen died? Her exposure had been seconds longer than his.

Brad realized that it would be futile to ask again.

That was at the end of the third hour. There were forty-five more. Forty-five hours can seem as many years when, utterly alone, one wonders every minute, every second, if an agonizing death waits at their conclusion or—ininitely worse—life as a ward of the State, too horribly marred to be seen except by others as hideous, seeing only others as hideous.

The forty-ninth hour, when the final tests



The girl was a heavy burden as Brad staggered up on a sloping, stony beach (CHAP. V)

If Joan died, Brad decided, he would make a clean breast to the police no matter what the consequences to himself might be.

What was happening to her? He'd seen her led into another cubicle like this but, when he asked the attendant who brought him his first meal how she was, the medic flatly denied any knowledge of her, denied that anyone else had been brought to the infirmary with him, denied that there was another patient in any of the neutralizing chambers.

have been made and nothing is left but to await the pronouncement of the verdict, can be a dark Gethsemane.

The cubicle door whispered open at last and admitted a blank-faced medical technician. "Okay, Mr. Lilling," he directed. "Please get into your clothes and report to the Surgeon-in-Charge."

"Which—" Brad squeezed through a tight throat. "Which means?"

"All clean." The fellow permitted himself a grin. "You're being discharged."

DOCTOR MARROW was a gaunt and somber Scientist. "We caught it in time," he told Brad. "You haven't even a burn to show but you will have to be careful."

"Careful, sir?" Brad was puzzled. "How do you mean?"

A faint smile touched the austere mouth. "Have you ever heard," the doctor asked with apparent inconsequence, "of a Scientist being injured in an accident?"

He'd said injured. He hadn't said killed. Brad's pulse pounded but he had to make sure.

"Come to think of it, sir, I never have. I suppose it might give some people ideas." A direct question would not be answered. "By the way, sir," he remarked, careful to get the phrasing just right, "I wonder if you would mind telling me whether your treatment has been as successful in any case similar to mine that you've had in—say in the past week or two."

"I don't mind at all." The tired eyes were obscurely amused. "We've had excellent results in every recent case of ray exposure. However, my boy, I earnestly advise you for your own good to forget everything connected with your recent experience." The smile vanished. "Everything."

He was advising Brad to forget that he'd ever met Joan Arlen. "I'll try, sir. It will be hard but I'll try." Not hard—impossible. "And thanks for all you've done."

"We've just done our job, son." Abruptly the gaunt surgeon was impersonal. "I've put you down for a ten day convalescent leave, Lilling. The attendant will give you your card as you go out."

Brad showed the card to the gate guard, went out on the bus platform atop the Station's Administration Building. It was between shift-changes and he was alone again. But now he could look out over drab square miles of low roofs shimmering in desert heat. . . .

Abruptly he was impatient to get to the laboratory where he spent most of his leisure time. He had a hunch that, with ten uninterrupted days in which to work, he would find at last the solution to the problem that had eluded him for years. If he could no atomician would ever again be maimed or killed by a flaring pile.

"Nice day," a vague voice murmured in his ear.

The little man, gray-haired, clad in in-

conspicuous gray, seemed to have materialized from thin air.

"Yes," Brad responded, "it's a very nice day." He turned a dismissing shoulder but the fellow couldn't take a hint.

"Some excitement around here a little while ago," the man persisted. "Depot approaches closed off by a swarm of Espees, in uniform and out. Sky-cover too. Guess it was some top brass taking off. You got any idea who?"

"No," Brad lied blandly. "No, I haven't."

"Too bad. I'd like to see a Scientist close up, just once. I'd kind of like to see how they're different from us. Or do you think they really are?"

Brad's spine prickled. "How should I know?" That last remark, he was certain, was not the casual make-talk it pretended to be. "I've never given it a thought, mister."

"Dulcie," the gray little man offered, although Brad hadn't ended his sentence on an interrogative up-beat. "Kag Dulcie, culinary tech two."

That was altogether uninformative. A cook or baker might be out of the Station's own refectory or a meal factory or communal dinery anywhere in the region.

"I guess I don't rate the 'mister' from you, though. I figure your rating's second or maybe even better."

"Second's right," Brad decided against revealing his name or category but he had an uneasy feeling that the little man already knew both. "Wonder what's keeping that bus?"

"Here she comes, right on time."

The stratobus was a speck high above the distance-hazed Sierra Oscurro peaks, the next instant a silver bird shape flashing over the forest of spidery powercast towers. Then it souged to a stop in its cradle, its jets purring. A door folded down out of the gleaming high side, became a ramp slanting down to the depot platform.

"Nor'east local," a disembodied voice droned. "S'louis, P'ttsb'rg, N'Yawk, Bos'n, Hu'son Bay points. 'Bo-oarrd. All-ll abo-oarrd."

Brad found a seat near the rear. Kag Dulcie slid in beside him, yawned. "Gosh, I'm sleepy," he mumbled. "Guess I'll catch me forty winks." He scrounged down on his spine and was snoring almost before the bus had resumed flight.

The way the little man's knees were jammed against the back of the seat in front

made it impossible for Brad to get past him into the aisle without waking him. There no longer could be any reasonable doubt that his appearance had not been precisely furtuitous.

Who was he? What was he after? Getting nowhere with the riddle, Brad watched New Mexico slide from under, give place to the Texas Panhandle, to Oklahoma—strange how the old state names persisted.

Toylike far below, the Kansas hydropones were lush with wheat and vegetables, growing gigantic under precise mechanical control of nutrition, temperature, moisture, solar irradiation. The vast Missouri cattle plants succeeded them, raying interminably across the landscape with their calving pens at one end, freezer storage for the dressed meat at the other.

"S'Louis," the annunciator blared. "Next stop's S'Louis."

KAG DULCIE opened one drowsy eye, closed it again.

He repeated this performance at Pittsburgh but, as New York foamed up over the horizon, its spume of towers the nexus for a cloud of sky traffic dancing midgelike in the sun, he came fully awake. Now I'm sure he knows all about me, Brad thought. He knows this is where I get off.

The bus eased into its cradle. Dulcie was already in the aisle, had reached the exit before it was jammed by the others whose destination was New York—except Brad.

"Nix, my friend," the latter muttered, staying put. "I'm not falling for that little stunt. You're planning to wait in the crowd and trail me when I pass you but me, I'm going on to Boston."

He could return on the next bus. Even though this would keep him from his lab for another begrudged half-hour, the thirty minutes would be well spent if they rid him of his perturbing incubus.

Out on the platform the little man did not so much as glance back. Watching him trot past the passengers waiting to come aboard, Brad thought his recent companion had forgotten his existence. He jumped up, got down the aisle in time to catch the last of the debarking queue.

As he went down the ramp, the city's hot, metallic smell greeted him and the deep-toned vast growl of its teeming millions. After two days of isolation the terminal's bustle confused, almost terrified Brad

but he found himself on the beltway at the platform's center and let it carry him down into the dim cool cavern beneath the enormous depot that bestrides mid-Manhattan.

The conveyor leveled out again, slid past the arched openings of the tubeways whose stupendous subsurface network finally had solved the metropolis' perennial traffic problem. Glowing signs named the farflung metropolitan districts, from Perth Amboy to Peekskill, from Long Island's South Shore to the Raritan.

Behind each a tubecar whined into its terminal trough, disgorged a half-dozen passengers, swallowed a half-dozen others from the head of the waiting line and vanished to be immediately replaced by another.

The whole system fanned out from this hub at the Old City's center. Unless one's destination was on the same line as his starting point, he transferred here. Long before the beltway had carried Brad to his own tube it had become annoyingly congested but there still seemed no good reason why a burly individual should crowd against him on the right, an only slightly smaller one on the left, pinning him between them.

"All right, Lilling," the latter said softly, "you're wanted."

His heart skipped a beat, then sledge-hammered his ribs. "What do you mean, I'm—"

The question died at his lips. The tip of a pencil-thin, four-inch rod in the man's hand had glowed briefly and Brad was voiceless. Were it not for the arms that had slid under his to support him he would have crumpled inertly down.

The neuro-rod had paralyzed him but he still could think. So this is how the Espee did it—but why him?

CHAPTER III

Dangerous Knowledge

THE one on Brad Lilling's right murmured, low-toned: "You can make this tough for us and a lot tougher for yourself or you can make it easy. If you're willing to be sensible bat your eyelids and we'll let up on you."

Anything was better than this awful paralysis. Brad fluttered his eyelids. "Smart boy." The n-rod glowed again and his body

came alive.

They crowded close to him, taking no chances. The beltway slid on past tube after tube. All about him was a yakatayakata of casual talk but in the midst of that jostling throng he was terribly alone, a ghost among the living.

"Blast!" someone exclaimed, just ahead. "We've passed our—" Jumping off the conveyor he pulled a woman with him and unscreened a familiar gray figure. Kag Dulcie at once celed into another group but Brad knew now who had fingered him for the Espee men.

They still made no move to get off. The last lighted sign drifted behind and the three of them were alone on the belt.

"Here," the agent on his left grunted. "Put these on."

"These" were a pair of goggles. Their lenses were opaque and sidepieces fitted snugly to Brad's face. He was completely blinded.

Shoulders pressed him off the belt to his right. There should be no tubeway here but his nostrils were stung by the familiar sharp tang of ozone generated by solenoids' surging current. Queer. He heard a tubecar's doors swish closed as he was pressed down into a seat. His ears were blocked by the pressure of speed only slightly less than that of light.

"Look," he ventured. "Aren't you chaps making a mistake?"

"We don't make mistakes." The answering voice was grim. "But you'll be making a bad one if you don't fold your face and keep it folded."

"I only wanted to know—"

"That's what got you into this jam," Brad heard. "You know too much already." His scalp tightened on his skull.

"*There's some think you already know too much,*" Starl Kozmer's fingers had warned him. He knew a lot more now and it was dangerous knowledge. It was so dangerous to Kozmer, to Porsen and to their whole cabal that they would be justified in taking any risk to make certain he did not share it with the authorities.

He had assumed, as anyone would, that these men were police but they had not said they were. It made far more sense if they—

The tubecar stopped. Hands cupped Brad's elbows, lifted him to his feet and urged him out. He could see nothing but senses sharpened by apprehension to pre-

ternatural acuity told him he was being guided down a long corridor, that he was in an ascending lift, that he'd emerged into another narrow passage and, suddenly, that he was in some large space.

The hands halted him. "Wait here." Footfalls thudded away.

Taut, sightless, Brad heard murmured voices, movement. His palms were wet with cold sweat. He tried to get up nerve enough to lift the goggles, started to but stiffened again at new sounds, sounds like chairs scraping somewhere directly ahead of him. A faint perfume trailed across his nostrils and abruptly he was trembling.

"Yes," a fitting, musical voice said. "That's the one. That's Brad Lilling."

"Joan," Brad croaked, "Joan Ar—" but a harsh palm was laid across his mouth and a hoarse voice growled, "Watch it. Watch your manners." Fingers plucked the goggles from his eyes and light knifed them, iridescent, shimmering light.

HIS pupils accommodated themselves to the brilliance. He was in a spacious room, each of whose opalescent walls was centered by the World Council's symbol, five protons whirling in concentric orbits about a tiny central magglob.

Dimly apprehended beside him was a stalwart figure in the gray-green of the Espee's uniformed corps. They stood facing a long table whose top was a broad, light-drenched crystal slab. Across the table five high-backed, regal chairs were aligned but only the middle three were occupied.

The man on the right—Brad's left—was sharp-featured, cadaverous, his eyes hooded by lashless, vulturine lids, his lips thin, straight, cruel. He too wore the gray-green Espee uniform but, instead of the guard's simple shirt, his officer's jacket had gold-braided epaulettes and its sleeves were crusted with gold almost to the elbows. Brad knew by this that he was Shadrach Gaslin, Commissioner of Region Three's Security Police.

The man in the central chair was not in uniform. He was tall even when seated, heavily built, his head leonine in proportion and pose. High intellect was in his broadly moulded countenance, the consciousness of power and the infinite loneliness of those possessed of great power. He was Gar Arlen, Region Three's omnipotent Administrator.



On the screen the giant bulldozer struck, shuddered and disintegrated (CHAP. VII)

On Arlen's left sat his daughter Joan.

In an ill-fitting protective suit she had seemed slim and long-legged and boyish. She was flowerlike now in some filmy, pastel green stuff that hinted modestly of her body's burgeoning womanhood. But no glinting lights danced in her eyes' incredible blue and her face was so still, so devoid of expression that, save for the quiver of its chiseled nostrils, it might be carved from wax.

Brad hoped that his own face was as stony. "Am I permitted to congratulate Miss Arlen," he asked tonelessly, "on her recovery from her recent accident?"

A tiny muscle flicked in her cheek but that was all. It was Gaslin who spoke.

"We've had you brought here, Technician Lilling, in connection with the episode to which you refer." Because his lips did not move, his reedy voice had a ventriloquial quality that was curiously intimidating. "Was it an accident?"

Brad's pulse jumped, steadied. "Have you any reason to think it was not, sir?"

"Answer my question."

"All I know, sir, is that I was down there with Miss Arlen—"

"No, Lilling," Gaslin interrupted, "you were not with Miss Arlen when Pile Two flared. She was immediately at its base. You were far enough from it for your protective suit to be effective."

"That's right." What was this all about? "I'd been called away by someone who had a message for me."

"Which you can produce, no doubt."

"No." Brad's nerves strummed like a radar scone but he contrived to keep his voice steady. "Before I got it the pile started to spit and I dived right back to Miss Arlen."

"So." Bony fingertip, immaculately tended, drummed on the table's edge. "Our investigators failed to find anyone who saw you at the time of the accident or who saw anyone else in a location from which he could see you, much less call to you."

"I—" Brad licked lips suddenly dry. "Miss Arlen must have heard him." An iron band was tightening around his brow. "I'm sure she heard him."

The Espee chief turned to Joan. "How about that, Miss Arlen?"

An artery throbbed in the blue-shadowed hollow beneath the girl's throat. Her lips moved.

"The only one I heard was Technician Lilling, calling to me to wait for him, that he would be right back. The blue glow," she added gratuitously, "already was beginning to appear."

"No," Brad moaned, "Oh, no!" But his larynx was knotted on his voice and no one heard him.

"So much for that," Gaslin was saying, "but there is more. The record, Lilling, shows that Technician Kozmer warned you that Pile Two was in an unstable condition and likely to flare at any moment."

"Not only did you not report this to the Station Director at once, as you should have, but, instead of following the customary inspection route on the level above the piles, you conducted Miss Arlen to a level where she would be in imminent peril. All this adds up to clear proof of—"

"Negligence," Gar Arlen's deep-chested rumble intervened. "Merely negligence." Here was help from an unexpected quarter. "And I feel that we must consider in extenuation that the young man did return after his initial panic to rescue my daughter."

"I agree, your excellency," Gaslin responded. "We certainly should." Brad relaxed. "If," the sharp-faced police head stressed the word, "that was why he returned—but it was not. He went back, true, not to save Miss Arlen but to make good an alibi for himself."

"Oh, come now. That seems far-fetched."

"Not in the light of the ray-aid technician's testimony as to Lilling's remarks. They conclusively demonstrate he thought your daughter had been exposed more than the critical ten seconds, himself somewhat less." An iron band clamped Brad's brow, tightened.

"That was what he planned. It was a very clever scheme and it failed only because he slipped by a second or two in his timing. It was," Gaslin's pale-irised, minatory look returned to the baited atomician, "a deliberately planned attempt at murder."

AND he was right. By withholding the single, simple bit of evidence as to the fake message, the real assassins had framed Brad with it and neatly cleared themselves of suspicion, making certain in the same stroke that the knowledge he possessed no longer was dangerous to them.

The incredible thing was that Joan Arlen had lied to help fasten the frame on him.

Even so there was a flaw in the deftly concocted plot. Brad forced words through his tight throat.

"May I say something, your excellency?"

"Of course. We condemn no one without hearing his defense. Have you one?"

"I have. There's no way to control the piles from the level where I was. That can be done only from the next level above or from the control room. I couldn't possibly have flared Pile Two at precisely the crucial instant."

Arlen's great head turned to Gaslin. "Could he?"

"No," the Espee Chief admitted. "He could not." He smiled thinly. "Not alone. He had at least one confederate, perhaps more. This outrage is part of the mutinous conspiracy we've known about for months." His minatory look laid itself on Brad's face. "We know all about it, Lilling. You might as well confess."

The iron band squeezed Brad's brow. "I have nothing to confess," he said.

He thought he heard a sound from Joan but, when he looked, her face was as mask-like as before.

"Listen to me, young man," Gar Arlen murmured, leaning forward, infinite charm in his grave smile. "You are too intelligent not to realize that we do not know all about this conspiracy or we should have smashed it long ago."

For the first time Brad sensed uneasiness here, an evasive quality of—could it be apprehension.

"Make no mistake, we shall eventually smash it but you can make it easier for us by telling us what you know."

There it was, the reason he had been brought into the awesome presence of the Region's top brass, the reason Gaslin and Joan had built up the case against him step by damning step. The Administrator's reluctance to accept had been designed to underline the futility of denial and at the same time to win his confidence.

"That is why I am offering you a deal, your help in scotching this plot against a full pardon for yourself."

It was funny—it was excruciatingly funny that, by framing him, Kozmer and Porsen had given him the power to destroy them.

"Come now," Arlen was saying, persuasively. "There's no reason in logic or ethics why you should refuse."

"No, your excellency," he agreed. "There's no reason why I shouldn't make a deal for a pardon. No reason except that I've done nothing that needs to be pardoned."

Gar Arlen sat back in his chair, his face, his expression abruptly stony. "I see," he sighed. And then, "You leave me no alternative but to sign the warrant for your liquid—"

"Just a moment, Dad," the girl broke in. "I just thought of something." She's coming through for me, Brad's heart caroled. She couldn't go through with it. "May I make a suggestion?"

"Of course." The Administrator's voice, his expression, softened. "Of course you may, dear."

"Look, Dad. I've heard so much about the new methods of questioning suspects Mr. Gaslin's information experts have invented. Why don't you let them try them on this man?"

That's fine, Brad thought. That's swell. He was going to give me a quick, clean death, but that wasn't good enough for her. One word, just one honest word from her would have saved me and this is what she comes up with.

"Very well, Joan," Gar Arlen was saying. "We'll try it."

CHAPTER IV

Inquisition

FIVE feet square the cell was. There was nothing in it save the armchair, of some greenish opaque synthetic, oddly resilient, in which Brad Lilling sat. No one but Brad was in the cell.

He knew only that it was in the same building. He did not know even through which of the four dun-colored blank walls he'd been brought in. They had put the blindfolding goggles on again before he'd been led from the room with the World Council's insigne on its walls—he had removed them only when he knew himself to be alone.

Someone had been waiting here for Brad. He hadn't seen him, of course, but he had sensed him moving silently about. He had felt the unseen individual place a weighty

cap on his head, a curious helmet that fitted tightly over Brad's scalp. It had an arm which curved down from its back to press a wet sponge against the base of his skull.

He'd felt the silent operative swab his temples and the insides of his wrists with some cool, tingling liquid and tape to them oval plates of thin and flexible metal. He saw now that from each of these plates and from the helmet fine wires coiled down to and into the arms of the chair.

He had the sensation of unseen eyes watching him. His own eyes searched the blank, the terribly blank walls for a peephole, for glint of light on the lens of a scanner. The walls blurred. A gray mist hazed them, swirled out into the room, filled it. The haze swirled into Brad's brain.

The haze cleared. . . .

Donning his hood, Brad Lilling momentarily was blinded. When he could see again, Joan Arlen already was thirty feet away in the aisle between the piles. "Wait for me," he called, snapping the hood's collarband shut with his right hand as his left pressed a stud in the wall behind him. "I'll be right back." Out of the corner of eyes he saw Pile Two's wall begin to glow but he already was wheeling from it to the transverse passage, empty as far as eye could see.

He fled from the flaring pile . . .

"No," Brad groaned, "No. It's a lie!"

The gray mists swirled in and thinned. Brad dimly discerned the cell's walls, blank and questioning and then the mists thickened and the gray haze possessed him once more.

The haze cleared. . . .

Brad Lilling was somewhere on the Station. In the control room? On the level above the piles? In some stealthy corner where he and the man to whom he whispered would not be observed? In some curious manner it was up to him to know where, but he did not. . . .

The man was a vague shape, lead-suited, his hood hanging loose from the back of his collar. Lilling knew who he was but not quite. It was as if recognition trembled, like a name on the tip of his tongue.

Lilling could not hear his own whispered words although their meaning was clear. "Our success depends on split-second timing. I'll signal you the instant she's gone far enough and on that same instant you must start Number Two spitting. Cut

the flare in exactly ten seconds, not a hundredth more or less."

"Set," the other man agreed. He turned to Lilling.

He had no face . . .

The gray mists swirled in.

The gray haze was part of Brad and he was part of the haze within which swirled dark shadows that pleaded with him to give them form and substance and voices.

The shadows, Brad Lilling with them, were in a place that had no outlines, no location and there was a horror in this place that chilled his blood, and a menace even more terrible. The horror was in the shapes of the men, Lilling knew, although he could not quite make out what made their shapes so horrible.

In the same tantalizing way that Lilling had known and yet not known the man in the Station, he knew and yet did not know where this place was. If he moved closer to the shadowy men, if he heard them more clearly, if he saw them more clearly, he would know.

His need to know drove him nearer, slowly, relentlessly, in spite of the impalpable miasmic horror about them. Step by reluctant step he moved nearer to them and now almost could hear their mutterings, almost could see them clearly.

Now!

They had no faces. Where their faces should be were only lacunae, blank and grotesque and more terrible than any nightmare.

The gray mists swirled about Brad and thinned and dissolved. The cell once more was sharply seen and real, its naked floor, its blank walls, real and permanent. Slumped in the chair at its center, Brad was sodden with the cold sweat of exhaustion, drained of strength and emotion.

STARTLINGLY, a tall ascetic individual stood beside him.

"Who—" Brad gasped. "Who are you?"

"Martin Corbin," the fellow answered.

"Information specialist, grade one." He started stripping the wires from Brad's wrists and temples. "I must say you're a tough nut to crack, Lilling." Detaching the wires from the chair and winding them into neat coils, he shook his head chidingly. "You simply refused to complete."

"Complete what?"

"The induced dreams." The informatician

lifted the helmet from Brad's head, held it up and gazed admiringly at it. "Wonderful instrument this. A great improvement over the old cumbersome methods of actually producing the sounds, smells and so on which cue desired dreams in a sleeping subject.

"This obviates all that and gives much better control of the induced images as well. You see, it impresses precisely measured neuro-electric potentials directly upon the cerebrum, bypassing the subject's own sensory channels. In addition to that it screens for us his mental images so that we can view them directly instead of having to depend on psychometric readings.

Brad shook the cobwebs from his head. "You mean that you made me dream those things, expecting me to fill in the blanks from what I'm supposed to know and you want to find out?"

"Precisely. But you wouldn't, you know." Corbin sounded very much like a teacher chiding a recalcitrant pupil. "Now I'm going to have to work over your emotional reaction graphs to determine whether you actually lack the information or were resisting."

"What happens if you decide I was resisting? Another session?"

"Natch. We have ways of breaking down a resister. Not very pleasant ways." The way he said that sent a cold chill through Brad. "Well, dear fellow, I'd like to stay here and chat with you but I must be toddling along. I won't say good-by though. I may be seeing you again in a couple of hours although you're such a nice chap I definitely hope I will not. For your sake, of course. Er—do you mind getting up? I have to take this chair along."

The wall to Brad's right slid shut and he was closed in to pace the naked floor with

his thoughts. Not, as Martin Corbin would say, pleasant thoughts. He pondered Starl Kozmer's treachery—but that had been forced on Kozmer. If Brad himself had been cleared the Espee investigators would have returned to the trail.

It would have led them to the leaders of the Technist rebellion and so destroyed it. He was a martyr unwilling but still a martyr to a cause which, to its adherents at least, was more important than any individual.

This was not so with Joan. Pacing endlessly, Brad tried to find some excuse for what she had done. Some reason why she'd changed so from the girl who, merry lights dancing in her incredibly blue eyes, had broken down the barrier between the daughter of the great Gar Arlen and Brad Lilling, Atomic Technician, grade two.

He remembered how, on the ray-aid scooter, her little hand had crept trustingly into his. "You came back for me," she'd whispered and her blue eyes had been wide with gratitude and with what Brad had dared to think might be something more than gratitude. And then she'd said, those eyes frosty, "The blue glow was just beginning to appear."

He'd been a fool, a complete and mindless fool to think—

A whisper of sound twisted Brad to the opposite wall from that to which his pacing had taken him. A vertical seam split it, widened, and a gray-green uniform showed in the aperture.

So soon? Could it be time already for Corbin to have completed his analysis and be returning to break down a recalcitrant register?

The panel was open. A guard entered,

[Turn page]

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STOMACH

JUMPY
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carrying something—a tray of food-laden dishes. The folded legs dropped, and it became a small table the fellow set on the floor.

"Okay, Mac," he growled, "Go to it."

The reprieve left Brad shaken, his stomach twisting. "Thanks," he choked, "but I'm not hungry."

THE turnkey's eyes went small in a brutish countenance. "He's not hungry, he says." His head half turned to the doorway at whose side the shoe-tips and a gray-green trouser leg of another guard were just visible.

"We bust up a good crap game and rustle up a midnight snack for him and what does he say? He says, 'Thanks. I'm not hungry.'" The lowering gaze came back to Brad. "You'll eat, Mac. You'll eat if I have to shove the stuff down your gullet."

Brad's bitterness became a throb of unreasoning anger in his veins. "Try it," he said, stiff-tongued. "Why don't you try it?"

"Sure, Mac." The guard licked thick lips. "Anything to oblige."

He moved lock-kneed around the table, moved toward Brad, slowly, hunching arms dangling loose at his sides but hamlike hands curling. Brad crouched, his own fists coming up. He watched a roundhouse blow start toward him, hang in midair. Pupils dilating with puzzled surprise, the fellow folded to the floor.

"Take it easy, Sten," the other guard said from the doorway. The red glow at the tip of the neuro-rod in his hand faded. "The guy's just scared that chow's drugged."

The vague voice struck a chord of memory and Brad, staring, made out under the uniform cap's broad visor a face he had good reason to remember.

"It's okay, mister." Kag Dulcie stowed the n-rod in the pocket of his gray-green shirt and started gesturing. "Be a nice guy and scoff it up fast." The gesture meant that Brad was to swap clothes with the man sprawl at his feet. "We're off-shift soon's we're through here and we're going out."

He meant Brad. He meant that Brad was going out of here in the other guard's uniform.

"I'm sorry," Brad mumbled, talking as Dulcie obviously was for the benefit of some listening device. "I guess I'm a little jumpy and your friend's getting tough didn't help." His fingers were trembling but he was strip-

ping fast. "I won't make you any more trouble."

"Darn right you won't," growled the n-rod guard. Brad froze, staring down at him. "Get busy." He was limp on the floor, only his eyes alive. "We ain't got all night." It was Dulcie who spoke, the imitation almost perfect. Brad grinned, resumed the exchange of clothing.

The uniform's fit left much to be desired but that didn't bother him as, walking on air beside the gray little man, Brad neared the end of a deserted, apparently doorless corridor. His people hadn't abandoned him. Kag Dulcie was one of them, had taken awful chances to rescue him.

"I fixed it with the lieutenant so we don't have to report back to the ready room," the latter said and stopped in front of the seemingly blank wall that terminated the passage.

"Kag Dulcie," he said, low-toned. "Three one six four, Baker shift. Checking out."

"Dulcie." The metallic voice seemed to come from the wall itself. "Three one six four. Checking out. Right."

"Sten Trostig," Dulcie said, in the voice of the guard they'd left on the cell's floor. "Five seven two nine, Baker shift. Checking out."

"Trostig," the wall acknowledged. "Five seven two nine, checking out. Have a good time boys."

"We will, lieutenant. Thank you and good-night."

"Good night." Released by some unseen mechanism, a wall panel slid open, admitted them to a lift-cage. Dulcie thumbed the top-most number of a vertical column. Brad felt pressure against his soles, sensed that the cubicle shot upward far more swiftly than any lift he'd ever ridden.

His elation had drained away. He was once more tight with apprehension.

Despite its speed the lift ascended interminably. The building must be immensely high, Brad thought. When they finally stepped out he knew that he was right, for they seemed to be among the stars. Beside the exit a guard's face was eerie in pale luminance from the panel before which he sat, his eyes intent on it. Dulcie went past it and a green light flashed out on it, flashed again as Brad passed.

"'Night, guys," the guard called. "Have fun."

Brad followed the little man out on a stone-paved roof, between long rows of

parked helicopters. Dulcie finally stopped at one of these, patted its side affectionately.

"Here's old Nancy," he said, "waiting for us and raring to go. You want to fly her, Sten, or shall I?"

"You," Brad answered, not daring more than the one syllable for fear the quiver in his voice would betray him to any possible eavesdropper. He slid to the far end of the skyboat's front seat and the little man slid in next to him, closed the door and clicked a switch under the cowl.

The airframe thrummed with current tapped from a powercast beam and vanes whirled overhead. Riding lights came on on either side the copter's nose, orange on the left, green on the right, the sign manual of the police. The skyboat lifted, rose swiftly.

The impossible had been accomplished. A prisoner of the Espee had escaped.

CHAPTER V

Dark Wasteland

VEINS pounding, Brad Lilling looked down to the sky-reaching spire already far below them, down along its windowless sides, immensely down to a pallid cascade of terraces each of which was a building monstrous in its own right but piled atop another even vaster to make a single, awesome edifice.

And still his eyes dropped, plumbing the night, till they came at last to the mountain dwarfed by the structure man had built atop it and to the glimmering silver thread of the Hudson at the mountain's base. In all the Region there was only one building like this.

"Xanadu." He breathed its name. And then, recalling the poet's ancient and immortal lines from which came the name for this Capitol where Gar Arlen and his counselors lived with their families and from which they ruled one-quarter of the world, "It's not been any 'stately pleasure dome' for me."

"No." Dulcie's eye-corners crinkled in the bright moonlight. "I don't guess it has."

Caught in some current of the upper air, the copter drifted swiftly up-stream. High above, two wide counter streams of riding lights traveled across the stardusted sky, stratocraft traffic to and from New York,

but on this level and below it they were quite alone.

Southward, Xanadu's soaring tower was a graceful silhouette against a rainbow arabesque of light widespread across the distant horizon, the varicolored bright tracery of arching skyways and faery spires that is New York at night. Even here the voice of the city pervaded the quiet night, a deep vibration less heard than felt.

"I haven't thanked you yet for what you've done," Brad said. "It was quite a stunt to shake me loose from that bunch."

Dulcie shrugged. "Getting you out was easy. The hard part begins now."

"The hard part?"

"Keeping you out. We'll be safe in this craft and these uniforms only till Gaslin's squadmen come for you and find poor Sten in that cell instead. If you ain't with your friends by then and cached deep, it's going to be just too bad for you."

"And how!" There was no spot on earth's surface that could not be searched for him by the Espee scanners, not a cubic foot of its air that could not be combed by their sky patrols. "Let's go."

"Sure. Whereaway?"

"Don't you—?" Brad caught that back, covered it with a cough. "I can fly there easier than try to direct you." His mouth was dry again, his heart pounding. "Suppose I take the wheel."

"Right." Dulcie pushed up, crowded against the instrument board to let Brad slide in under him, moved sideward to the vacated spot—and plopped heavily down, lolled forward as though abruptly boneless till his head lay on the cowl, a startled and reproachful question in the gray eyes.

Brad released the trigger of the neuro-rod he'd plucked from the little man's shirt pocket. "You gave yourself away," he answered that question, "when you talked about my friends, not yours, and asked me where they were."

Steadying the rocking helicopter, he continued, "I was already a little suspicious after the way the lieutenant who checked us out went right on with his 'have a good time, boys,' after acknowledging Trostig's name and number, not waiting for anyone else to speak."

That meant he could see us and that there were only two of us, so should have noticed that you spoke for both. I convinced myself he was drowsy or careless but then you

made your slip and I knew that you're an Espée spy trying a stunt that was old when the Greeks built their Trojan horse."

He laughed, curtly, bitterly. "The joke is that, even if I hadn't tumbled I still couldn't have led you to the rebels because I—" A half-sensed sound twisted him around to the rear seat.

His startled glimpse of the glittering, phantom shape that lifted from the floor there and his thumb's jab on the instinctively aimed n-rod's trigger were all but simultaneous. Moonlight slid across the slender, silver-sheathed form swaying in the first instant of paralysis, showed him a heart-shaped, pallid face, and glowed on a cluster of golden tresses.

"Joan," Brad gasped as she crumpled. "Joan Arlen."

As incapable of movement as his rod's two victims, he stared incredulously down over the back of the seat at the still, pathetic heap on the floorboard behind it. He must be dreaming. It was utterly beyond reason that the girl who'd sat mask-faced and lied away his life should have stowed away in this police craft but the final outré touch was that she should have done so clad in an evening dress of cobweb silver cloth that left bare her rounded arms, the singing lines of her white throat and shoulders.

For the laughing-eyed minx of the Station escapade, on the other hand, it was entirely in character—A sense that something more had just gone awry bore in on Brad.

YES, something was deadly wrong. The copter's power-thrum abruptly had ceased. The craft was dead in the air—dead and dropping, slowly because the vanes still turned silently overhead but undeniably dropping to the waiting river.

And he knew why. The Espée had taken no chances. They'd kept a listening beam on the skyboat, eavesdropping on all that was said within it. They'd heard him taunt Dulcie with the failure of his trick, had cut off the copter's power and now were dispatching another ship to fetch Brad back to his cell. Heavy with defeat, he turned to watch it come, saw Xanadu's tower glistening in the moonlight but only empty air between.

His skin tightened. Beyond the Capitol New York had vanished.

The shining arabasques had been swept from the sky. Even the metropolis' omnipresent growl was hushed so that the night

was invested with a fear man long ago had forgotten, the dread of the sunless hours his jungle ancestors knew as they crouched in their torchlit caves.

Above, the strato-craft lights were gone. Somehow, perhaps because the stars had regained their lost supremacy, the horizon to which Brad's eyes returned seemed immeasurably more distant.

And now the fear that closed on him was no longer ancestral memory but immediate. The horizon where only moments ago the great city had shone in glory, the very stars its shining lights had paled, were blotted out by a black, Gargantuan something beyond experience.

His first inchoate notion, that there had been some failure of the powercast beams, was now unthinkable. In that case, unlit though they might be, New York's towers and skyways still would be silhouetted against the stardusted heavens.

This crouching blackness had a single, semi-circular edge at which the stars were cut sharply off. Within that clean-cut arc, where a hundred thousand leaping structures, where twenty million human beings should be, was—nothing!

A bright spark flared there, exploded into a thousand flaming bits. Some strato-craft had struck the blackness, its fragments dribbled blazing down, outlining the curving surface of an unimaginable half-sphere—A crash jolted Brad from his feet.

The river geysered up through a sudden gash in the sky-craft's thin hull. The copter shuddered, tilted to scoop more water over its side. Choking, half-drowned, Brad fought the black flood, realized the copter had slid from the rock that mortally had wounded it, was sinking rapidly.

Somehow he'd kneed to the swimming seat, was over its back into the space behind. Somehow he was overside, the girl's limp body in his arms as he watched the craft whirled away by some darkly malevolent current.

Kag Dulcie, paralyzed, was still in the doomed craft but Brad could do nothing to save him. If he were to save himself and Joan he must swim to the low black line of shore he glimpsed through water-blurred eyes. The disastrous rock, only a jagged, up-thrust spike, offered no refuge.

He was near exhaustion when his kicking feet scraped bottom and, gulping air in great gulps, he could stagger up on a sloping, stony

beach. Breathless, dazed, the girl an impossibly heavy burden, he nevertheless was flogged by some instinct of the hunted from this expanse naked to the sky. Squinting, he made out a low, black mass edging it, some thicket that offered the concealment he must have.

He reached it, sank to his knees through rustling bushes, laid Joan down gently.

She lay pitifully still in the dancing, leafy shadows. Her wet-dark hair plastered against cheeks drained of color, her sodden gown a silver skin revealing her every nerve-tingling curve, she seemed a fabled mermaid drowned in air—*drowned!*

Brad suddenly was leaden with a sense of infinite, unbearable loss and then he saw her long, wet lashes flutter open, saw her wide blue eyes find and rest upon his face.

"I'm sorry, Joan," he mumbled. "I didn't realize it was you till I triggered."

He checked his words. Why should he apologize to her? Why, in spite of what she'd done to him, had his first thought when the copter crashed been of her? Why was he so concerned for her that he'd forgotten Dulcie, his own peril, even that he'd just seen New York extinguished?

He hadn't—he could not really have seen that. It had been an illusion, the waking nightmare of a brain wearied by hours of stress, reeling under a swift concatenation of new shocks. It must have been an illusion—and yet that vast void on the southern horizon had seemed, still seemed in retrospect, so vivid. He must see, he must convince himself that it was not real.

GATHERING strength and courage, Brad cautiously edged head and shoulders out from the concealing bush. He'd landed, he saw, at the head of a bay enclosed between the hill-shoulders that sloped down to the river's edge. They cut off his view in either direction but he could look up. He could stare up and see that once more the stratocaster riding lights streamed across the sky.

His brow knitted. Those lights were not moving with their wonted, orderly certitude. Their streams eddied, shifted. In the northward one, great gaps showed.

But the city's voice was in his ears again, deep and comforting. No—what he heard was the thrum of a helicopter's vanes, momentarily more distinct. Not passing, hovering directly overhead and dropping.

So quickly, then, the Espée had located him. Odd—he heard their copter, very near, but he could not see it. He could not see it but he heard its vane thrum, dropping swiftly to the beach.

The sound cut off.

Brad stared toward where it had sounded last. He saw the pallid beach, the river glinting in moonlight, nothing else—Wait! He rubbed his burning eyes and looked again. Yes, there it was, some twenty yards north along the shore. A sort of shimmer as if a whorl of heated air intervened between him and the river.

Abruptly the evanescent bubble of refraction was blotched by a vertical black bar, some six feet high, that widened as the space between a door-edge and its jamb widens when the door slides open. As abruptly a man stepped out of this slit in the night, turned as if to close a door.

The bar narrowed and was gone, but the man still was there on the beach. The moonlight, bright on him, showed his hair as a white mane. Showed his face as he turned and started across the beach to be only half a face, the right half blanked out by an eyeless dark scar.

He was Starl Kozmer

Brad's numbed lips twitched. He recalled an incident long ago forgotten. In the Station refectory one midnight, before going on-shift, a group had discussed their leisure-time occupations. He'd told them a little about his own ideas for rendering pile-flares harmless but they'd hardly been more than ideas then. Kozmer was farther advanced.

"I'm working on a paint, a coating really, that will make things invisible. The principle's simple enough, but—"

"Simple!" someone had exclaimed, scoffing.

"Quite simple," the old man insisted, unperturbed. "If light rays originating—or reflected—from behind an opaque object can be refracted around it and returned to their original direction, the intervening object would appear perfectly transparent, hence invisible, to an observer. It can be done. Sooner or later I shall do it."

"Okay," the scoffer had yielded. "It can be done but suppose you do it—what use will it be?"

Kozmer's twisted smile had faded. "I don't know," he'd responded, slowly. "I don't know that it would be any use but what's the difference? Working at it keeps me from

thinking about—"He'd caught himself and turned the talk to something else.

Now, Brad realized, Kosmer had solved his self-set problem and found a use for the solution. Since the demise of the old soil agriculture and the development of sound-swift aerial transportation, everyone lived in the cities and commuted to the plants and agricultures erected in rural areas.

No such installations existed in this hilly Hudson valley stretch so near Xanadu. It was a wasteland never entered. By furnishing the rebels with a means of visiting it unobserved by the Espee sky patrols, Kozmer had made it the ideal spot for their secret meetings.

And, Brad grinned, the ideal spot for him to have landed. All he need do was let Kozmer know he was here and the gaugeman would see to it that he was safely hidden. His troubles were over.

EXCEPT for one thing—one person. The revolutionaries already had tried to kill Joan once—he could not deliver her into their hands to finish the job. Nor could he leave her here, helpless, to be found by one of the wild dog packs that roamed this deserted terrain.

Even if, in the struggle to escape the sinking copter, he had not lost the neuro-rod that would have restored her, she had seen too much, knew too much for him to free her to find her way back to Xanadu and the Espee.

But Kozmer had reached the bushes, was pushing into them and in a moment would be lost in sight.

"I'll be back," Brad whispered to the girl, dropped flat and himself wormed into the thicket. He must keep track of the aged atomician, find where he was going, return then to solve the dilemma Joan presented.

The harsh ground rasped his palms. Thorny brambles plucked at his clothes, tore his face. He no longer heard the threshing of foliage by which he guided himself! Brad froze. Had the old man heard him? Was he peering through this black tangle trying to spot him, perhaps with a pocket bazooka in his hand, ready to blast?

Ahead of Brad and above him footfalls thudded. Above Puzzled, he ventured to move forward a little and his head broke into the open. An embankment ran here, just beyond the thin strip of bushes he'd traversed and roughly parallel to the river. The footsteps were atop this rise. They were di-

rectly overhead. They were passing, had passed.

Brad lifted his head. Limned against the luminous sky a white-haired figure plodded along the embankment toward the hill to the south. He got moving again, lifted to the weed-lush slant, groped blindly overhead for a handhold. His fingers found rusted metal, and with a great effort he drew himself up.

The metal was a rail running along the narrow dike and, at the opposite edge, there was another. They were the tracks of a railroad abandoned years ago when all interurban transport took to the air. They ran away from him to where Kozmer was just entering the hill's looming shadow.

Once lost on that darkly wooded slope, Kozmer would be lost for good. Brad trotted after him, grateful that the ties to which he gauged his stride were so rotted as to muffle the sound of his footfalls. They muffled his quarry's too. He'd lost—no! The old gaugeman was silhouetted against an odd gray splotch on the hillside, low down.

He vanished. He hadn't turned off the embankment. He hadn't started to climb. It was as if he'd walked right into the side of the hill.

That, Brad learned as he neared the point of disappearance, was exactly what he'd done. The grayness was the stone facing of a tunnel portal into which the tracks plunged.

Brad flattened against the stone, peered into Stygian darkness that smelled of dank earth and slime-scummed rock. Somewhere inside Kozmer's footsteps echoed, resonant. They stopped. No light appeared but a murmur of voices came to Brad's straining ears. Then silence.

It didn't matter. He knew now where, when he was ready, he'd find friends and help. Now he must go back to Joan and figure out what to do about her. Brad turned away—tried to turn away but could not. It was as if the night had gelled to hold him in an impalpable but resistless mould.

He'd been ground-looped.

Pebbles rattled down from the portal's top, skittered away. A black something dropped formless down, crouched in the blackness of the tunnel mouth. It had a voice, husky, somehow not human.

The voice said, "All right copper, say your prayers."

CHAPTER VI

Cavern in Hell

AN ERRANT moonbeam glinted on the wrist-thick stubbed barrel of the pocket bazooka that jabbed at Brad Lilling, helpless in the clutch of a Jennsen forcefield.

"Hold it," he squeezed through his locked larynx. "Hold your blast. I'm no cop."

The sinister shadow hunched closer and took on the same quality of—of not rightness and made more eerie the husky voice. "You lie. You're in a cop uniform and it's sopping wet." How could he see that in this lightless murk? "You're off that Espee copter just dropped in the river."

"Right," Brad acknowledged, "but that don't make me a policeman. I was a prisoner and escaped— Look here!" No need going into that long and hardly credible tale when he had an easier out. "There's someone inside there who'll vouch for me. Kozmer."

"Kozmer? The leader knows you?"

"I'll say he does." So Starl Kozmer was the leader of the rebellion, was he? "And you'd better take me to him pronto. I've got something important to say to him and every minute counts."

It worked.

"Okay," Brad staggered, almost fell as the ground-loop released him. "Come on." He sensed rather than saw that the bazooka gestured him to the tunnel mouth, went into it. He heard shambling footfalls behind him as he stumbled into darkness so absolute it seemed tangibly to thumb his eyes.

Dead air was dank in his nostrils, the hill overhead a terrible weight. The tracks

curved and Brad followed the curve. Something rough, sodden, slapped his face, folded about him and tangled his limbs.

Panic subsided as he realized it was only a curtain hung across the tunnel. He pushed through it and blinked into dim luminance from a deep niche in the rocky wall to his right. In there an ungainly form hunched over a wall-bracketed shelf cumbered by the coils and condensers of some electronic set-up.

"Go on," said the man behind him and he passed the niche, discerned a sort of wheeled platform on the tracks, a curious, handled teeter-totter jutting up from its center. "Climb aboard that."

Brad obeyed, turned and for the first time saw his captor as other than a shadow.

Laboriously hauling himself to the platform, the fellow's hulking body seemed grotesquely misshapen inside earth-brown clothing to which clung twigs and bits of leaf. His leg had only a leather-covered pad for a foot, the right foot was twisted sideways. But it was his head at which Brad gaped, his skin crawling.

It was not really a head. Set neckless on lurching shoulders, it was a somewhat larger than head-size cube of flesh-tinted, opaque plastic. It had a lipless round orifice for mouth, tiny fluttering valves for nostrils and for eyes two unblinking lenses between which and a little above there protruded a curious small nodule woven of fine wire.

By a gesture of a three-fingered hand, this macabre apparition indicated that Brad was to take hold of the handle at one end of the seesaw, himself bent and grasped the handle at the other, down-slanted end and pulled it up. The platform groaned, jerked into motion and Brad realized that it was

[Turn page]

Tired Kidneys Often Bring Sleepless Nights

Doctors say your kidneys contain 15 miles of tiny tubes or filters which help to purify the blood and keep you healthy. When they get tired and don't work right in the daytime, many people have to get up nights. Frequent or scanty passages with smarting and burning sometimes shows there is something wrong with your kidneys or bladder. Don't neglect this condition and lose valuable, restful sleep.

When disorder of kidney function permits

poisonous matter to remain in your blood, it may also cause nagging backache, rheumatic pains, leg pains, loss of pep and energy, swelling, puffiness under the eyes, headaches and dizziness.

Don't wait! Ask your druggist for Doan's Pills, a stimulant diuretic, used successfully by millions for over 50 years. Doan's give happy relief and will help the 15 miles of kidney tubes flush out poisonous waste from your blood. Get Doan's Pills. (Adv.)

some sort of conveyance powered by pumping this teeter-totter up and down.

Brad bent, straightened, bent again. The monotonous, mechanical rhythm lulled the apprehension with which he'd begun this weird journey into the bowels of the earth to dull, almost incurious acceptance of whatever it might lead him to. But at the back of his brain lay a nagging worry.

What would happen to Joan, lying paralyzed in the none-too-effective concealment of those bushes? Well, he asked himself, what could he do about her save hope that she'd be discovered neither by prowling animals, by the Espee nor the rebels? Maybe, when he'd learned more about the situation ahead, he'd think of something.

Push down. Pull up. Push down again in the sightless dark. Sightless only to him. Brad knew now that the railcar, himself, the tunnel, were as visible to the individual at the other end of the seesawing bar as though they were bathed in full daylight.

PARADOXICALLY, this was because the creature was blind.

The lenses in the box that covered his head and the wire nodule between them were part of a most ingenious device. End product of researches begun in the Decade Crossroads when the human debris of war included so many eyeless men and continued through those early days when Atomic Energy was taking so fearful a toll of those who worked with it. These were the antenna and receptors of a radar apparatus whose pulses were stepped down to the infinitesimal potentials of neutral currents and fed directly into the brain's vision area. Since radar is not concerned with light, the system functioned as efficiently in absolute darkness as in the brightest illumination.

Down. Up. Down and up again. Brad recalled that this was only one of the contrivances by which Science salvaged the survivors of atomic and other industrial mishaps. In most instances, however, these survivors were so terribly ravaged that, despite the most skilled surgery, they remained too distressing in appearance to live and work among others more fortunate.

For their own sake they were committed to the Custodial Colonies where they spent the rest of their lives as wards of the State. Here they were provided with every creature comfort, every facility for whatever occupation they elected to keep their minds

alive, whether in cultural pursuits, in handicrafts or scientific research. Here, isolated in their own quiet communities, cut off from news of the outer world and never seeing anyone to remind them of their difference from other men, they might achieve some measure of contentment.

What then was his guide doing here, so far from any colony of which Brad knew? He—Brad dropped that speculation as the railcar slowed, then stopped.

"Off," his captor commanded out of the blind murk. He clambered down, heard a thud beside him. A touch on his shoulder steered him away from the tracks.

He was climbing some steep slope. His feet felt rough rock beneath. His fingers trailed rock walls either side, too close for two to walk abreast. Suddenly a hand caught his arm, halted him. His guide shoved past. Directly ahead, metal squealed on metal.

Brightness slit the black, widened with the sinister grinding rasp of an old fashioned, hinged door. The brightness was blotched by the blind man's uncouth silhouette, holding the door open.

"Come ahead," Brad went through, was stopped again by blinding dazzle. The hinges squealed again, behind him, and the door thudded ominously shut. His vision cleared.

He was at one end of an extensive cavern whose low rock roof was supported by ponderous pillars still showing the marks of antique tools. The bluish light, from ancient fluorescent tubes bracketed to the central line of columns, fell on rudely built wooden tables, on backless wooden benches but did not quite reach the cavern's walls so that space seemed limitless, enclosed only by shadows.

Perhaps because of this, Brad had the uneasy feeling that he was back in the last of the induced dreams through which he'd sweated in his cell in Xanadu. Like the place of that dream, this cavern seemed somehow out of space and time; like the dream place it seemed filled with some brooding, inexplicable horror.

As in that dream a cluster of shadowy shapes muttered unintelligibly, far down at the other end.

Unbidden, yet without will of his own, Brad moved toward them. Slowly, as though he pushed through some unseen miasma of deepening dread, he neared them, was near enough to make out that they were back-

turned to him, intent on something they screened from him and, now, that the horror brooding here was immanent in their shapes.

He made out one whose limbs were ingeniously articulated rods of metal and plastic, another whose body remained erect only because it was suspended by straps in a wheeled frame. A third seemed altogether whole save that the top of his head was sheared slantingly off, while a number had for heads the boxlike contrivances with which his guide was equipped. Sickened, oblivious of where he walked, he blundered into a bench.

IT TOPPLED, fell with a resounding crash that wheeled the broken men to him. The light fell across their faces.

They had no faces! They had only plastic masks like his guide's or, infinitely worse, ray-burned blanks with mewling little holes for mouths and corrugated slits for eyes.

They were the faceless men of his dream.

One, then another spied Brad in his Espee uniform. Their mutter became a low angry growl that crescendoed into a shrilled oath, a curse. The cluster milled, split and spewed grotesque forerunners who hobbled or limped or rolled in their frames, straight for him. And Brad stood frozen, gaping not at them but at what he'd seen as the cluster of broken men had shredded to stream towards him.

They'd uncurtained a visiscreen there at the cavern's rear and a greater horror had obliterated the lesser.

The screen showed the horizon at which Brad had been gaping in the instant the river rock spiked his helicopter. A fleet of planes now wheeled and weaved in the sky above it and their interlacing dance of searchlight beams, slanting down, was sliced short in mid-night to trace a vast, inverted bowl beneath which was hidden a city of twenty million souls.

It had been no illusion, no trick of a fevered brain. Some unimaginable catastrophe— A sliced-off head leaped between Brad's staring eyes and the screen! Clawed talons slashed the hand he instinctively flung up to fend them off, sank into his shoulder. He jerked free, was clubbed in the face by a fingerless fist, reeled into something that squealed, toppled with a metallic crash, whirled into a flurry of blows that pounded him to his knees.

Abruptly there were no more blows.

Propped on quivering arms, battered, half-

blinded, Brad dimly was aware that some command had halted the grisly attack. The same voice came again, flat, curiously without resonance.

"What is this, Vince? How did that policeman get in here?"

His guide's husk answered. "He says he's not a policeman, Mr. Kozmer." The name penetrated Brad's daze. "He says you know him." A hostile circle ringed him and the blind man, and no one else. "He told me he had an important message for you so I brought him in."

They two were alone in the ring but the response hung right here, above them. "You should have checked with me, Vince." Was it because of the device by which the aged gaugeman had made himself as invisible as his copter that his voice was so changed? "I do not know this man. I never saw him."

"Look at me, Kozmer," Brad croaked. "Take a good luck. I'm Lilling." Was he so battered as to be unrecognizable? "I'm your Controlmaster, Brad Lilling."

"My Control—" The voice was cut off, interrupted by a murmur just under the threshold of intelligibility. The macabre circle shifted, hating Brad, lusting to be unleashed at him again, but the expressionless, mechanical-seeming voice, speaking again, held them. "Very well, Vince. Fetch him to me."

The circle parted. Stumbling after his blind guide, it came to Brad that the voice which had saved him had been projected into the cavern from behind the wooden door, embrasured in a sidewall, toward which they went. Vince pulled it open. Brad fumbled through into a smaller cave. The door thudded shut, leaving Vince outside.

"This is a strange place for us to meet, Mr. Lilling," Starl Kozmer said. "Most strange and most unfortunate."

CHAPTER VII

Doomed City

BRAD LILLING spraddled weary legs to hold his aching body. His bleared eyes found the white haired atomician, standing near the dial-panel of an intricate and unfamiliar electronic setup stretching across the lower half of the opposite wall. The old

man's twisted half-smile seemed more sinister than ever as he sighed and said, "This is my brother, Lilling. Fran Kozmer."

His brother? The figure beside him resembled a human only because, propped on two leglike, articulated struts, the central rectangularoid had the proportions of and was only slightly larger than a man's torso. It sprouted from just below the upper edges of two opposite sides of plastic simulacra of arms and was topped by a head-box like Vince's.

"Starl has told me who you are, Lilling." It had a voice too, the flat voice he'd heard in the cavern. "What is this important message you have for me?"

This then, or rather the unimaginably maimed man encased within this artifact, was the Kozmer whose name worked magic with the faceless men. This was their leader. "Well?"

Brad swallowed and stammered:

"I—er—" His talk of a message had been a desperate stall. What could he say now that would sound at least plausible? "I've just escaped from Xanadu. While I was a prisoner there I learned that the Scientists know you're plotting to overthrow them."

"You did?" The rasping susurrations might be intended for a laugh. "That's scarcely news, my friend. They know by now not only that we're plotting against them but that we've beaten them. Look here." Fran Kozmer pivoted, touched a panel-stud with the five-fined extremity that was his hand.

The cave dimmed. A square of light appeared on its rear wall, above the panel, shimmered and took on perspective.

Slanting from somewhere above, a searchlight's brilliant beam struck out of the surrounding night two men who stood on an eminence. One was Shadrach Gaslin. The other, stockier, his squarish head set bull-necked on stalwart shoulders, was Lin Forbes, Chief Engineer of the Region. Lonely on that solitary height, they watched something below and beyond it.

The scene shifted to that which they watched. A machine so huge that the men swarming about its towering caterpillar treads seemed fingernail-sized pygmies, Brad knew it for one of the enormous bulldozers that could level a forest or slice off a mountain's top in a single irresistible pass. Gleaming in the beam that spotlighted it, its huge shafts churned and it lurched into gigantic motion.

Other beams laid themselves on the ground ahead of the bulldozer, slid along the path it followed, made vivid the green grass, some scattered pebbles and slid over a sudden sharp edge into a fathomless abyss.

No—Brad was mistaken. This was no chasm. The beams had lifted. Their ends, sliced off, traced the almost imperceptible curve of a curtain that neither reflected light nor diffused it but quenched it. It was as though all light, all existence, ended at that wall. As though beyond it was—nothingness.

Trembling, chilled to the marrow, Brad knew that he saw a close-up of the hemisphere he'd seen clamped down over New York from afar.

The bulldozer again centered the screen. Arrogant in the consciousness that nothing had ever withstood it, that nothing could, the behemoth drove straight at that incomprehensible barrier. It was yards from its target. It had only feet to go. It crouched, hurled its thousand tons of duralsteel against the appalling curtain.

It struck. Shattered. Disintegrated into a pile of shattered, futile shards. On the hill overlooking this debacle, Lin Forbes' arm went out in a small, involuntary gesture of defeat. Within the cavern of the faceless men, their leader's laugh rasped Brad Lilling's quivering nerves.

The screen blanked out, was alive again. Now it framed a room hung with gray draperies, furnished in stark simplicity. Behind a ponderous desk a quietly dressed, gray-haired man sat, looking down at a sheaf of paper that lay on its otherwise bare top.

"We now bring you Matt Tarlin," an unseen announcer droned, "with the latest information from Xanadu."

Region Three's star newscaster lifted his head, his hollow-cheeked countenance grave, blue shadows pouching his somber eyes. Five pulsebeats of brooding silence, then the rounded, resonant tones familiar in every household.

"Good news, my friends. I can give you the definite assurance that there is no immediate cause for anxiety over the inhabitants of New York.

"I have just come from talking to the top officials of the Regional Administration," Tarlin continued. "Here is the picture as they've drawn it for me. The Food Distribution Authority's files disclose that sufficient food is warehoused within the city to

bar any fear of famine for from ten to twelve days, longer if rationing is instituted at once. There is water enough in the mains and auxiliary reservoirs to last nearly as long.

"As for air—well, a corps of mathematicians has calculated that enough is enclosed within the shell to provide breathable oxygen for some ninety-odd hours and the Chemicals Bureau reports an available supply of the necessary chemicals sufficient to restore the vitiated atmosphere for an additional day or so.

"Therefore, my friends, the city's population can exist for five days to a week. Long before that, you may be confident, the shell that has isolated them will have been dissipated or at least penetrated."

FRAN KOZMER was laughing once more. "No, Tarlin," he husked. "Not in five days or in five centuries. That shell is there to stay."

"The physicists still are uncertain," the newscaster was saying, "as to what connection if any this phenomenon has with the unprecedented failure of the New York area's powercast beams that occurred simultaneously with its appearance. It is doubted that there is any connection. A number of piles flared at the same time and as soon as the flares were controlled, the beams again functioned normally. That phase of the matter probably was mere coincidence."

"That's fine," the human robot muttered. "Let them think it was coincidence if it makes them happier."

Tarlin shuffled a paper to the bottom of his sheaf. "I am now permitted to make public what has been learned about this curious barrier which has cut off New York from the rest of the world. This is very little, it must be admitted. We know that nothing—light, sound, heat, the whole range of electronic vibrations—can penetrate it.

"Geophysical soundings have established its shape. It extends as far below the city as it does above, rounding down through the tubeway network, through bedrock, perhaps through the edge of Earth's molten core, to form a true sphere, a hollow globe within which is enclosed the world's most populous metropolis."

Once more the newscaster paused and Brad noticed that the carefully tended fingers that rested on his script trembled minutely. There was, however, no quiver in his voice.

"There are two principal theories as to what it is. One that it is an ultra-dimensional stress in space. The other, and more probable theory in this humble layman's opinion, is that it is an accidentally created bubble of pure energy."

"Energy, Tarlin," Fran Kozmer commented. "Naked force but not accidentally created. Not by any means accidental. Your bosses know that even though they haven't seen fit to tell you."

"We have shown you," the calm voice from the screen flowed on, "some of the efforts that are being made to cut through this shell. You naturally are far more interested in what is happening within it. This we can neither show nor tell you. Those inside undoubtedly are endeavoring to communicate with us as desperately as we are trying to get through to them and with as little success."

"At this moment we know as little about them as though, at one seven A.M. Eastern Standard time, a little less than an hour ago, they had been transported to another planet. All we know is that those who are inside, as all of us outside that shell, are disciplined and resourceful and courageous."

With a quick, impatient thrust, Matt Tarlin sent his papers skidding across the desk top and over its edge. Some indefinable change had come to his expression, to his brooding eyes, as though till now he'd been a mere conduit for the voice of authority, was now about to speak for himself.

"We do not know what is happening inside that shell, my friends, but we can look into it with imagination's eye and see."

He paused for a breath. "We see that the street belts, the elevators and ramps, the tubeways, all the vast complex of machinery that beats the tempo of a modern city are so much dead metal. No light penetrates that shell, no light will penetrate it even when the sun finally ends this dreadful night.

"So, in New York, the only illumination is that furnished by ancient lamps from exhumed museums, by tapers and torches contrived out of what ever fats and fabrics are available. Some sort of organization has been improvised. Committees are delegated to ration food and water, to care for the children and the ill, to maintain order.

"With our mind's eyes we see a city of looming shadows, a city whose teeming millions are surrounded by the machinery of a civilization toward which man has strug-

gled for tens of centuries but who suddenly must depend on their own hands and on the most primitive of contrivances for the bare necessities of existence. We see a city suddenly cut off from humanity, a vast modern city whose great systole and diastole of life has slowed to a faint and feeble pulse."

A city whose shadowed streets were stalked by fear, Brad thought. A city whose people fought the chill beginning of panic.

"A city," Fran Kozmer's cold, not-human voice, added, "irrevocably doomed to extinction." He blanked out the screen.

Starl Kozmer groaned, closed fists at his sides. "Think, Fran," he pleaded. "Think of the men, women and children dying inside that shell."

His brother's nose-valves fluttered. "I am thinking of them, Starl. I'm thinking of how they put us out of their sight and mind while they enjoyed what we gave them and destroyed ourselves in giving it to them. Now it's their turn."

THEY seemed to be continuing a discussion started before Brad had appeared.

"I've suffered too, Fran," Starl put a gnarled hand to the scar that purpled half his face," even if not as much as you and those poor fellows out in the cavern, but I know that no one is responsible. It is human destiny that every step in our climb from the jungle must be accompanied by sacrifice. That is the inevitable price mankind pays for progress."

"Progress toward what? Toward more sacrifice?" Strange, Brad thought, that the brothers were at such odds. Had not Starl been after him for months to join them? "Are you satisfied with what the price we've paid has bought?"

"You know I'm not. You know that I and my friends are fighting to correct the inequities brought about by society's adjustment to all the implications of Atomic Power. But we follow the age-old pattern. Mechanical and scientific advances must come first, then social readjustment to the new environment."

"What you propose is to stop progress, not only stop but reverse it." Brad pricked up his ears. Was the murder of New York's millions animated by something other than insane revenge. "You can't do it, Fran."

"Can't we? You've heard Matt Tarlin." The structure of plastic struts and sinews

that was Fran Kozmer's arm lifted, pointed to the instrument panel. "Listen, brother. If I press that stud, Boston will be enclosed in a shell like that which immures New York. That one," the arm moved minutely, "and the people of New Orleans die. And I will, Starl. I will extinguish your Scientists' cities one by one until they agree to give up their Atomic Power, demolish their Stations and—"

"Destroy civilization," Starl broke in. "The pages of human advance cannot be turned backward. Our only choice is between unremitting progress and disaster. Give it up, Fran. You tell me New York is irretrievably destroyed, but you can give up the rest of your mad scheme and let me go ahead with my fight for justice for the Technists, for equal opportunity."

"Opportunity to be blasted into things like me or those poor fellows outside." The toneless voice seemed all the more impassioned because it was so incapable of expressing passion. "Opportunity to be deprived of fatherhood or to be capable of sir-ing only monsters."

Heart in mouth, Brad was moving so cautiously he seemed almost not to move at all, toward the side wall to which Fran Kozmer's back was turned.

"No, Starl. We are determined that no more young men shall be condemned to the hell which we've inhabited all these years."

Keep arguing, Brad prayed. Keep at it and forget me. If he could reach the instrument beyond the two brothers, reach and smash its tubes, its delicate coils, the faceless men could not go on with their plan for mass murder.

"All these weary years," their leader repeated, "we've planned and built and tested for this night. Your Scientists made it easy for us. They gave us laboratories for our research and did not question what we did there."

"If, from time to time, one or two of us vanished from the colonies they made only a desultory search, content as long as we did not appear where our pretty faces and handsome bodies would turn their delicate stomachs. They never suspected that we were gathering in this ancient, abandoned iron mine almost under their very noses in Xanadu."

In the corner Brad froze. Fran Kozmer had paused, his nose valves fluttering with a long inhalation.

"Now at last," the toneless voice resumed, "we've struck." Brad was moving again, sidling inch by taut inch along the sidewall. "We've enshelled their proudest city and given them till morning to convince themselves they no more can penetrate that shell of force than they can quench the rays from a flaring pile."

A tiny muscle twitched in the atomician's cheek.

"If they've not accepted our ultimatum by eight o'clock, Chicago meets New York's fate. At noon San Francisco goes. One by one, till they admit defeat, their cities and everyone within the cities will be blotted out.

"That's final, Starl." Brad was hesitating again. He was still too far from his goal to chance a desperate leap but the next inch of cautious movement would bring him into Starl Kozmer's line of vision. "That is our plan." Would the white-haired gaugeman betray him? "You can talk from now till doomsday and you'll not sway me from it."

Brad moved the critical inch.

The purple-scarred half-face tautened. The old man's mouth twisted in its bitter half smile.

"Very well, Fran," he sighed. "I'm licked, but I still think you've bitten off more than you can chew." He'd seen Brad, guessed what he was up to, and was holding his brother's attention so that he'd have a chance to do it. "Suppose the Espee locates you here before your ultimatum expires and raids you. What then?"

"Then?" It seemed that the box-corners that were Fran Kozmer's shoulders shrugged, though of course they could not. "Why then, my dear brother, warned by our patrol at the tunnel mouth I should press the master stud that in a single heartbeat will enshell the Region's ten largest cities and, in the next, this cavern."

Directly behind him now, Brad was without a gasp of aloud but, close enough now, gathered himself for the leap that would make the appalling threat futile.

"We will die, true, but eighty millions will die with us. No one can stop us. Not even you, Mr. Lilling," the man-robot turned to him, casually, his laugh rasping. "Touch any part of that panel on its circuit and you will be electrocuted instantaneously—before you possibly could damage it."

He flexed his plastic claws. "That's one advantage of this artificial body they've

given me. Another, Lilling, is that the microphones which serve me for ears are so sensitive that the rub of your clothing along that wall was like a file-rasp on sandpaper to them."

CHAPTER VIII

Hint From the Dead

CONSIDERABLY to his surprise Brad felt his lips twist into a wry grin. "Well," he shrugged, "you can't blame me for trying."

"No," Fran Kozmer agreed. "I can't blame you for trying. On the other hand you are sentimentalist enough to try again even knowing the attempt must mean your death. I cannot afford that, nor have I any means here of keeping you prisoner and so, much as I regret it, I shall have to liquidate—" A gnarled hand flashed from behind to flatten over his mouth orifice and Starl Kozmer's other arm clamped around his torso box.

"Get out," the old man panted. "I'll try and hold—" But Brad already was darting across the cave. "Try your flare-quencher," he heard. "It may—" and as his hand closed on the doorknob Starl Kozmer's shout broke into a shrill scream.

Brad flung open the door, slammed it shut behind him. But, as he hurtled toward the cavern entrance, he carried with him his last glimpse of the aged atomician, flung straight back against the panel, white hair sparking into flame, scarred countenance crisping.

"Stop him," Fran's shout batted at him. "Stop that spy." But the mine's denizens once more were clotted about the screen at its farther end and before they could get moving Brad had sliced open its entrance door, was through.

He slammed it shut. Black dark swallowed sight but he'd glimpsed the rock-walled stoep outside and was half-running, half-falling down its steep slant. Hinges squealed again, behind and above him. Sudden light laid a long, grotesque shadow on the floor. The light faded, but the stoep was hideous with the thud of pursuing footfalls and something caught at Brad from behind. A ground-loop!

He jerked loose. It was too feeble at the distance from which it had been thrown to hold him. He stumbled, regained his footing and speed. A bazooka blast pelted him with rock fragments from the stope's roof and its orange-red flash left on his retina the jagged arch below, framed within it the railcar that had brought him here.

Brad threw himself down the final few feet, was aboard the platform, somehow found in the darkness the teeter-totter's up-slanted handle, dropped his whole frantic weight on it. It gave. The railcar lurched and as he pulled the handle up again, panic tripling his strength, grated into movement. Just in time. The blast that luridly lit the tunnel singed the short hairs of his neck.

There was a slant here, perhaps, or his wordless prayer was answered for the car gained speed more swiftly than when two had pumped. Brad heard the wheels clack more and more rapidly beneath him, felt the crossarm move more easily with each desperate stroke, knew that by grace of Starl Kozmer's sacrifice he'd escaped from the faceless men.

He racketed back in the direction from which he'd come, back toward the portal where an armed guard waited. Nor could he stop the car, dive from it and hope to find safety in this ebon darkness. It wasn't dark to them, they'd run him down in no time. He had no choice but to speed on, hoping against hope that, in the confusion, no one had remembered to flash the tunnel mouth a warning to stop him.

The need for speed and more speed thrust Brad down, pulled him up although his arms and the muscles of his back screamed protest. Wheel thunder hammered back at him from the close, unseen walls and the dank odor of slime-scummed rock, of air the sun had never warmed, was in his nostrils.

In them too was recollection of the stench of burning flesh and in his ears an old man's agonized scream, his last heroic words. "Get out. I'll hold—"

Not quite his last. "Try your flare-quencher," he'd called in his moment of extinction. "It may—"

It may what? What had Starl Kozmer meant by that? Why, in his last instant of life, had he recalled the fumbling research heard about years ago? It didn't make sense.

Or did it? Brad tingled with an as yet inchoate notion. Ahead, swiftly brightening, was light from the niche in the bore's wall

and a shadow blotched the light and then a black shape moved out onto the tracks. It butted something against its shoulder—a bazooka.

Something crunched sickeningly under the railcar's wheels. It had hurtled down on the faceless man faster than he'd reckoned, had struck and passed him before he could fire. Miraculously still alive, Brad heard the wheels scream around the curve, rocketed out of the tunnel and felt the wind of his speed cool and sweet and fragrant on his face.

The curve had slowed that speed somewhat. He fought the pendulous crossbar to slow it still more—heard a hoarse shout from behind and was blinded by an orange-red flash that missed him only by inches.

He'd forgotten about the sentries outside the portal. In the bright moonlight atop the embankment he made a perfect target. The next blast could not miss. His sideward leap from the still racing car was merely a choice of evils.

For an infinitely long second, Brad Lilling sprawled in midair, then catapulted down to bone-crushing impact, was received by cushioning bushes instead, ploughed down through threshing foliage.

He groaned, tested arms and legs. They still worked. He rolled over to hands and knees, crawled through the black tangle away from the embankment, abruptly saw something other than flicker of leaf shadows. He saw the beach, the river. This was the same thicket where he'd hidden after swimming ashore— The thicket in whose concealment he'd left Joan Arlen only an hour or so ago?

HIS head ballooning, Brad scanned the curving, stony beach sloping away from him. His burning eyes found what they sought, the vague, barely describable shimmer that marked the spot where Starl Kozmer's helicopter rested. It was almost directly opposite him. Joan, then should be about twenty yards to his right, toward the hill in whose depths the faceless men had built an unconquerable weapon with which to assassinate civilization.

He could not see her. But he could see first one dark misshapen form, then another and a third, steal out from the black edge of that hill's shadow. They were, without doubt, the portal guard out to hunt him down.

As they gathered in whispered consultation, he glanced back to the all but invisible copter, so temptingly near, then back to the faceless men. They were moving slowly toward him, pausing every step or two to peer into the thicket. They were hugging the rim of the bushes. Inevitably they must stumble on Joan.

Brad measured distances with his eye, estimated speeds. Could he reach the paralyzed girl unseen and burdened with her, steal back in the shadow of the bushes and then make a dash for the copter? Perhaps. It would be a desperate gamble but he might just bring it off.

He pulled his legs up under him, knuckled down in a sprinter's crouch—took off, straight across the beach!

He reached the bubble of refraction, clawed at metal he could not see. His fingers found, twisted an invisible latch, slid open an invisible door. A hoarse shout of discovery lifted him up and into an abruptly seen copter seat and he'd sliced the door shut again, was clicking a switch on an altogether apparent instrument board.

Vane-thrum commenced, crescendoed. Brad's frantic thumbtip jabbed a stud. The helicopter shuddered, leaped straight upward. He had time now to realize that he could see the sky, the river, the beach dropping from under him, that Starl Kozmer's coating blocked sight only one way. Except for the glasslike substance, transparent from within, that cabined it, this craft was exactly the same as any other single-seat copter flitting the airways.

Brad thumbed another stud to check his rise, hovered some seventy feet above where the trio of faceless men, out away from the bushes, gaped up to the sound of his vanes. They'd seen a man appear, as suddenly disappear. They heard a skyboat where they could see none. Mysteriously, magically, their quarry had eluded them.

He could not make out just how two of them were deformed, though he knew they must be. The head of the third, however, was a cube like Vince's. That one flung up a sudden arm and a red flash streaked from it, straight up at Brad's sideslipping craft.

Only in the last split second had he recalled that Vince saw not by light but by radar, and that Kozmer's coating did not refract radar pulses.

The skyboat rocked, leaped up and down again, whirled in antic evasion of the blasts

that lashed up at it. The other two also were firing, guiding themselves by the flashes from the gun of the one who could see it. Brad's plan to swoop down and snatch Joan from under their noses effectively was stymied. As long as he could keep them busy with him, she was still safe but at any instant a lucky shot might clip him.

They seemed to have plenty of ammunition. How long— The boxheaded man staggered, fell. The two others wheeled from their stricken comrade, plunged into the bushes just ahead of a green light-thread that licked out from the spot where Joan must be, the tracer pellet of a urathor pistol.

They vanished into the covert and Brad steadied his craft, peered down, his brow furrowing. Who had fired those shots? Surely the girl had no n-rod. Who, then, had found her and was fighting to protect her—and him?

That was the oddest part of it. Espee or rebel, why should anyone fight for him? He was a pariah, hunted by the one, outcast by the other.

Drifting lower he thought he could make out a lumping of blacker shadow just within the shadow of the thicket's edge. Movement at the corner of his eyes pulled them to the embankment. Coming up atop it, the two portal guards turned to scan the bushes.

One pointed, then both were lifting their weapons, taking careful aim. A warning shout broke uselessly from Brad's lips but the copter zoomed down on a shut-vane slant, struck and leaped up again from two crushed, lifeless shapes sprawled across the rusted rails. It spun, hung on humming vanes, dropped again to settle gently on the beach.

BRAD fumbled at the door latch, had it open, started to step from it. Two figures broke from the bushes, ran toward him. One was silver-clothed, lithe and slender—Joan Arlen! The other—Brad's jaw dropped as the moonlight showed him the face of the other. It was Kag Dulcie.

He let them crowd past him into the skyboat, was galvanized into action by Dulcie's, "Let's go, Lilling. There's more of them on that hill." The copter sprang aloft again, slanted up east over the river. Brad turned, saw that Joan was slumped wearily against the other door, brought his eyes back to the

gray little man seated between them.

"You," he said inanely. "You're not drowned."

"Not unless I'm a zombie and I'm pretty sure I'm not. No. I floated out of the copter as it sank, and the current washed me ashore there at the tip of the cove."

He'd lain, Dulcie explained, in such a way that he could look across the little bay and see Brad stagger ashore and make for the thicket. He'd seen Kozmer appear, on the beach, vanish in the bushes and reappear on the embankment, had seen Brad show up there and follow him.

"I used to be on sky patrol over this area years ago," he ended, "so I knew about that tunnel and got the idea right off that that's where the rebel hideaway is, somewhere in there. But I couldn't do anything for an hour."

"An hour?"

"Yeah. Don't you know a neuro-rod shot wears off in about sixty minutes? It took a little longer for Miss Arlen, seeing she ain't as tough as me. Say, this invisible copter is a neat stunt, ain't it?"

"Very neat," Brad agreed. "But what did you do after the paralysis wore off?"

"Well, lying there I saw and heard enough to know there were lookouts posted on that hill, so I knew I'd better worm my way around the curve of the bay pretty careful to get to her. I'd just about reached her and found her just beginning to stir when you popped out of the hill and all pandemonium bust loose. What happened? You and your gang have a falling out?"

"Yes," Brad said dryly, "we had a falling out but they're not my gang. How come, since you thought they were, you took a hand in—hello!" he broke off. "What's going on now?"

As the copter rose above the level of the hilltop, he'd spied a pair of riding lights, orange and green, streaking from the direction of Xanadu. Now behind that police craft he saw two more, then four, abreast, then another four and the drum of their vanes filled the air.

"What's bringing that Espee squadron this way in such a hurry?"

"Me," Dulcie replied, complaisantly. "As soon as you showed up I radioed headquarters what I'd spotted down there. With this." He tapped a tiny, hitherto unnoticed packet clamped to his belt. "In a code that sounds like bird calls unless you've got an

unscrambler. Your friends are through, Lilling. They're all washed—"

"No!" Brad exploded, watching the lead craft shoot past the brow of the hill, wheel and dive down. "Call them off!" The others followed as if on an unseen track, in beautiful precision. "For Pete's sake, call—too late!" Their lights had blanked out and the thunder of their vanes and Brad's own vanes were silenced as his craft dropped.

"Eternally too late," he groaned, the blood draining from the surface of his body. "Heaven forgive you, Dulcie, for what you've done."

"What—?"

The vane-thrum began again but only the thrum of their own vanes as their craft once more was rising.

"What did I do?" Dulcie finished his question.

"Look down there."

Down there the railroad ended abruptly before it reached the hill. There was no hill. There was only a great hemispherical void gouged out of the night, circling out into the river and above it, a single high skyboat rode the sky starkly alone, its searchlight beam, shooting down in search for its comrades, cut sharply off by the pall of nothingness that had engulfed them.

"Lord!" the Espee man whispered.

Joan Arlen, her voice almost as toneless as Fran Kozmer's, asked, "What is it, Brad Lilling? You seem to know."

"I know," he assented, dully, recalling now that neither she nor Dulcie had seen New York blanked out, that they had not heard the faceless man threaten that if the Espee raided his lair he'd enclose it in a similar shell but first would obliterate ten more cities. "I wish I didn't."

"Tell us."

"I'll show you." Brad lifted his invisible craft high enough that its passengers could see, far to the south, the living grave of twenty million. Then he told them what the vast blank in the sky was, told them what he'd seen on the visi-screen in the cavern of the faceless men and what he'd heard there, told them of Fran Kozmer's threat.

"He's done it," he ended. "What he did to New York he's just done to Boston and Chicago, New Orleans and San Francisco and six more cities whose names you can guess as well as I."

The copter's transparent cabin walled in a throbbing silence while each of the three pic-

tured the sudden dark, the awful isolation, the gradual certainty of slow death that had come to eighty million humans.

Joan broke it. "Can't anything be done to save them?"

Tight-lipped, skin taut over the bones of his face, Brad answered her. "Maybe." Recalling the cry of a white-haired man who'd perished in the next instant, he said, "Yes, maybe something can be done. Maybe I can do it."

CHAPTER IX

"Blast to Kill"

EVEN though the moonlight was brighter at this high level Dulcie still was shadowy; but there was a golden nimbus about Joan Arlen's head. Her eyes turned to Brad Lilling as he muttered, working out aloud the half-thought that had come to him in the tunnel.

"I didn't mean that much to him. Something a lot bigger made him do it."

"Who?" Joan asked. "Made whom do what?"

"Starl Kozmer. Made him buy with his life my chance to escape. He'd gone in there to beg Fran to lay off, so he already knew something about that shell and a lot more came out while they wrangled. Fran was certain nothing can crack it but Starl—sure. That's what he meant.

"Try your flare-quencher. It may—' he meant. Seeing me had brought back to him the principle of it that I told him way back when and it hitched up somehow with this other thing. But how?"

Quivering, but not with fear, Brad halted the copter's rise, sent it into horizontal flight south of east. "I've got to get to my lab and figure it out."

"Oh yeah?" Kag Dulcie grunted. "Ain't there something else you gotta figure out first?"

"Not that I know of. That's where I think best and that's where all my notes and apparatus are."

"Sure. But how're you going to get to them without being picked up? That's one place the cops'll be keeping a close eye on."

"An eye? For me?"

"For who else? You don't think the Force

would let even this hurly-burly call them off the hunt for an escaped murderer, do you?"

"A murd— Oh, good grief! So that's why you saved me from those faceless men, to preserve me for a due and legal execution."

"No, Lilling." The little man's lips moved in their vague smile. "Not any more than I sneaked you out of Xanadu so you'd stooge me to the rebel hangout. My orders was to get you to some place where you could be hid."

"Your orders! But you just said that the Force— Who gave you those orders?"

"The same person that had me pick you up at the Station to make sure you got away okay. The only person for who I'd take the chance of being busted or worse. The Lord knows," Dulcie grinned, "I've taken enough of them chances since I been her bodyguard."

"Her!" Brad snatched at the pronoun. "You mean—"

"Yes, he means me." The girl's low voice was abashed. "I kept Dad from signing that warrant so as to gain a little time and then I asked Seregant Dulcie to help you escape. And—and even that wasn't enough." A flush mounted in her cheeks.

"I couldn't wait for him to come back and tell me you were all right. I hid in his copter. I was an awful fool, I suppose, but I couldn't get it out of my head that you'd risked yourself to save me even though you'd planned in the first place to kill me."

The stars spun around Brad in a dizzy whirl. "But you knew I hadn't, Joan. You knew that pile didn't start to flare till after I'd started away from it."

"I knew nothing of the sort, Brad Lilling. It was already glowing when you called to me to wait for you."

There it was again but she wasn't lying. She believed it.

"Got it!" Brad's palm slapped his thigh. "I was the fool. I never thought of that. The flare showed down there at the center where you were, but not yet at the corner where I was."

"You mean you didn't see—"

"Wait. Let me think." Once more the astringent prickle of inspiration coursed his spine. "A pile flares from the center outward only when one or more of the beams it feeds are overloaded. But we haven't logged that kind of spit since all machines drawing a dekakil or more were equipped with Laughlin automatic demand equalizers.

All authorized machines. That flare was brought on by some illegal energy user tapping Pile Two beam. Do you follow me, Joan?"

"Follow you?" She laughed, the silver tinkle back in the sound of it, unshed tears of happiness making moonstones of her eyes. "I lost you at the corner where the glow didn't show yet, but that was far enough to tell me that the voice inside here," her hands indicated her heart, "was right!"

"There wasn't any plot, Joan. Not against you." More bits of the talk in the cave were coming back to make a pattern. "Quite the contrary. That message wasn't a phoney but an attempt to save you—and me."

"The amount of power they drew for their tests would have to cause overload flares if they used one beam but none was ever logged. They were tapping a beam fed by Pile Two, by Starl Kozmer's pile. They tapped it only during his shifts and he covered up the spits."

DIDN'T something in one of the induced dreams fit in here too, something that could be in the dream only if the Espee knew it?

"Starl gimmicked the gauges so they wouldn't register on the control desk graph-lines but he couldn't keep them gimmicked all the time or it would have been spotted. So he had to know when the flares were due."

"He knew one was due when we went down there, sent that message down through his own undercover organization to steer us out of danger, was seconds too late because I'd taken straight to the lower level."

"Makes sense," observed Kag Dulcie, who'd been listening avidly. "But that means you're wrong about this Starl Kozmer bird not knowing all about this business till after he went in the tunnel. He knew where they were headed all along."

"Not necessarily. Here's the way I think it was. Fran fooled him into thinking he was working on something that would give Starl a bargaining point to get out of the Scientists the reforms he was after. It was only when New York was blotted out that he realized what his brother really was up to and even then he had no idea the shell couldn't be lifted. He only found that out when he rushed to the mine to plead with Fran to drop his scheme."

"Could be," the little man yielded, grudgingly. "So what?"

"So you're going to use that gadget at your belt to get permission for me to enter my laboratory and work there. Tell your bosses I may be able to save the cities and they won't refuse."

"Says you! Me, I have my doubts but it's worth a try." Dulcie put fingers to the box at his midriff, started tapping.

"Blast!" Brad groaned. "There's something else. How do I know I can get to my lab? Suppose it's inside the shell." He peered out into the night. "I can't see—"

"Brad," the girl's voice brought his head around. "Look there." She pointed to the instrument board. "Isn't that a radarscope?"

"Thanks." He grinned shamefacedly, clicked the 'scope's switch. "Good thing somebody in this craft's keeping a clear head."

The lenticular disk became luminiscent with a maplike picture of the river below, the rusting ruins of Poughkeepsie Bridge, the mile square roof of the tubercar that had replaced the homes of the historic town.

The light dot indicating the copter's position drifted to the disk edge as Brad twirled a knurled knob. The rolling Westchester hills slid across the lens, skirted here and there by the gray lines of unused highways, dotted by lightless clusters that once were bustling suburban hamlets.

And abruptly there peeped out from beneath the disk's rim, at the top, a black crescent that did not reflect the radar pulses. "That's it," Brad breathed. That's the edge of the shell."

"No," Joan whispered. "Oh, no."

"Steady, there's still a chance." But his own fingers were far from steady as they turned the knob slowly, slowly rolling that lightless crescent clockwise down along the 'scope's rim as the imaged countryside rolled counter-clockwise up into the disk. Now the crescent was almost to the lens' bottom and Taconic Park was wheeling up into view. But the antique soil-gardens that border the great area devoted to Technist recreation were blotted out by New York's coffin.

Brad's fingers were icy slivers as they turned the knob, bringing into the scope a pitiful eighth of the spreading fields where the old games are played with balls, a somewhat larger fraction of the swimming lagoon.

Nearly half of the air-polo pylons were outside the shell, but of the shops where

were kept alive the ancient handicrafts only one low metalworking structure had escaped the blight. Now the disk contained a grassy expanse. It was too featureless to judge how much was obliterated, how much not. And now, rising five hundred feet from that sward—

"The Lab building! It's outside. Only by fifty yards or so, judging from here, but enough."

"It's a good omen, Brad. Now I'm sure you're going to get there and save the cities."

But Kag Dulcie turned a bleak face to Joan and murmured, "Listen."

Beneath the deep thrum of the copter's vanes there was audible a low twitter.

"What does it say, Kag?"

"It's our answer, Miss Arlen. From the boss. From Shad Gaslin. He's saying, 'Lilling's proposal patently subterfuge gain time for another attempt escape. You are ordered take him into custody and return at once to Xanadu. If resisted, blast to kill. That is all.'"

"The fool!" Joan flared, her eyes blazing. "The utter idiot. Dad would never— Get him, Kag. Get my father. You should have addressed him in the first place."

"I did, Miss Arlen."

"Then why did Mr. Gaslin answer?" she asked, frowning.

"Because—" The gray voice hesitated. "You remember why you're all dressed up the way you are, Miss Arlen."

"Why, yes." Her white brow puckered with puzzlement. "I was supposed to go to a banquet with Dad. Just as we were boarding his skyacht I told him I felt ill and begged off, but instead of going to our apartment I hid in your—oh-h-h!" Her pupils widened. "You're trying to break it to me that—"

"Yes, miss," the little man murmured, miserably. "That dinner was in New York and the speechmaking was still going on when—"

"Dad's inside there." The little sound in her throat was a moan.

Brad yearned to take her in his arms but the gray little man was between them, so all he could do was say, "It's all right, Joan. We'll get your father out. I'm getting into that lab somehow, and—"

"Not if Gaslin knows it," Dulcie broke in. "He was too smart to trust me. Look out behind."

BRAD looked. The lonely police copter no longer was wheeling over the blacked-out hill of the faceless men. It had straightened out, was speeding toward them.

"They fixed our location while I was sending and now they've ordered that cop to come and take us."

"But this ship's invisible."

"He's got radar, ain't he?" The box at Dulcie's belt was twittering again. "He can see us and he can blast us out of the sky if we don't hover and wait for him like he's telling us to."

Small muscles knotted the ridge of Brad's jaw as he revved up vanes to maximum, veered to a new course. The pursuing lights changed course too.

"Yes. He's got radar and can see us. Your dress, Joan. Take it off. Fast."

"What?"

"Take it off, Joan, if you want ever to see your father again. You, Dulcie, tell your pal to take it easy. Tell him you're about to hop me. Tell him anything but stall him."

"Now look here, Lilling. You—"

The Espee man's protest was checked by the girl's snapped, "Do what he says." Blushing, she was tearing open fastenings, ripping at fabric. Dulcie shrugged, put a hand to his belt and Brad rocked the copter as though a struggle were going on within it, glanced sidewise. Clothied only in stockings and two insignificant wisps of silk, Joan had the silver sheath in her hands.

"Good girl. Tear it in half. Toss me one half and start ripping the other into as small bits as you can."

"Let me have some." Sudden comprehension had dawned in Dulcie's face. "We've got to work fast." The twitter that had broken out again cut off. "That was him telling me to go to blazes. He's pulling up on us."

"Let him." Brad's fingers tore brutally at the shining, foam-soft fabric. "He's in for a surprise." The floor was ankle deep in gossamer shreds. "Open your door, Joan, and start shoveling this stuff out."

He pawed his own door open. The wind roared in. The copter was enveloped by a sudden glittering cloud, a swiftly expanding flurry of silver snow pulled across the sky by their speed. The doors were shut again and anxious eyes sought the orange and green light-specks in the sky behind.

They were there but they no longer darted across the night with assurance.

"It's working," Dulcie grunted. "By all

that's holy, it's working. He's lost us."

"And he won't find us again," Brad grinned as he sent their own craft climbing on a steep, swift slant towards Taconic Park. "Unless he has the luck of the condemned. His radarscope's filled with thousands of darting specks and he can't make out which one's us. Lucky I remembered reading how in the war before Decade Crossroads, the bombing fleets often masked themselves by strewing clouds of silvered paper along their path."

"I call that ace remembering," Dulcie commented. Something like awe had come into his tone and he no longer smiled. The grin of triumph faded from Brad's face too and, as he cut off power and the copter hung on silent vanes, Joan's deep-drawn breath was startling loud in the sudden hush.

High though they were, the dark mass to their right mounted immensely higher, black, appalling. Below, far below and out in front, the Laboratory Building crouched, tiny at the shell's edge. Brad touched the radar knob, brought it up into the lens. Its roof, its walls and what was left of the surrounding greensward showed clear and distinct and there was no sign of life anywhere.

"Looks like you gave the Espee more credit than is coming to them, Dulcie. They're not here."

"Not where you can see them. They want to trap you, not scare you off. They're waiting in that lab of yours."

"No." Invisible and without sound, the copter glided for that roof. "You forget no one, not even the police, may enter a private research lab except in the presence of the worker to whom it has been assigned. That's the law and to make sure it's obeyed every lab entrance panel is set so it can be unlocked only in response to its owner's specific neural aura."

"Okay, I forgot that. So what? They're in the building. They're in the corridor right outside your door. You still can't get in."

"I have to." The roof was very near now. "I'll get into it somehow." But Brad had miscalculated. The skyboat just missed its edge, drifted down the pallid wall.

"It's got windows," Joan exclaimed. "Why's that, Brad?"

"Because so many lines of research need natural light. But the panes are a transparent plastic that passes through the whole solar spectrum and they can't be opened."

With apparent irrelevance, Brad added, "Let me have that urathor pistol, Dulcie."

"No! I'm willing to try and help you keep from being nabbed, but I'll be cursed if I give you a gun to kill my buddies."

"I'm not going to kill anyone except possibly myself. Give me that pistol."

Brad felt the cold grip in the hand he'd held out sideways for it but his other hand clicked a switch and vane-thrum broke out again, thunderous, to check the copter's fall and hold it, heaving a little, with its door opposite the paned aperture behind which was the laboratory he must enter.

"Take the controls, Dulcie."

HE WAS up. He had the door open. Some curve or projection of the skyboat's hull kept the doorsill some thirty inches from the window. He looked down four hundred sheer, vertiginous feet of empty space. His left hand grasped and fiercely held the doorway's edge. His right brought Dulcie's pistol up, squeezed the trigger.

The green streak pierced the shatterproof pane, left a tiny, ineffectual hole. The hole was edged with a thread of greenish light that expanded to an inch-wide circle, to a circle two inches, three inches across and still growing. Holding grimly to the door-edge, Brad put his right leg across to the windowsill, straddled the dizzy gap.

He heard Joan gasp within the copter.

The light-thread reached the ferrocrete frame, blinked out along it. He pulled his other leg across, was through the paneless aperture, was down inside, only now dared to think what might have happened had he slipped, had the skyboat swung or drifted.

"Brad!" He heard Joan's voice and swung to the window, to see a slim stockinged leg on its sill, a white thigh, a silk-swathe-waist around which his arms flashed and tightened.

He lifted Joan in, held her warm, satiskinned, to his terror-emptied chest. "You little fool," he gasped. "Suppose you'd fallen."

Warm breath on his face, warm and very sweet. Blue eyes so close to his they swam and were almost one. Lips all but touching his as they asked, softly, "Would it have made a difference to you?"

Would it make a difference to him if the sun never rose again? But Brad put her from him, wrenched away from her to the vane-thrum outside.

"Get that copter away from here, Kag, before they hear it and guess what's up. And— And thanks for everything."

"Think nothing of it, pal." The door was sliding shut. The gray little man lifted a hand, smiled vaguely. "Good luck, Lilling." He wasn't there. The sound of vanes moved away, lifting. Abruptly there was no sound. There was only a faint shimmer, as of a swirl of heated air, between the window and the shell's black loom.

CHAPTER X

Last Chance

SLOWLY, Brad Lilling's arm dropped from its answering wave. He twisted, strode stiffly past shadows familiar as the lines of his palm, jerked open a cupboard door.

"You ought to be spanked for this cute trick," he growled, fumbling inside the closet.

"Why, Brad? He knew just how the blue eyes rounded, naively innocent, behind him. "I just wanted to help you."

"The help I need is someone to keep you off my neck. Here." He reached back a long laboratory coat. "Put this on." The garment was pulled from his fingers and he went on along the wall to the entrance panel. "Hate to light up but I can't work without seeing." His hand found, pressed a wall switch.

The white, apparently sourceless light filled a wide and lofty room, gleamed from polished metal surfaces, was netted by snaking cables. Dominating everything else, tall and intricate in the center of the room, was a machine that bore some faint resemblance to a gammatron. From beside it as Brad turned, demure and once more boyish in the long coat that hung clumsily about her, Joan smiled timorously at him.

"I'll be good, Brad. I promise I won't be in your way."

"Better not," he said absently. His look slid past her to the window and through it to the dark and terrible curtain that hung so close outside. "Why was he destroying the cities if all he wanted was to abolish Atomic Power? Why not just obliterate the Stations?"

"I'm sure I can't tell you, Brad. I—"

"Oh, for—look, Joan. There's a visiscreen down there at the other end. Go turn it on, like a good girl and amuse yourself watching it."

"I—" Her upper lip trembled, for all the world like a small child's told to stop annoying its elders. "You—"

"Run along and look at the pretty pictures. No sound, though. Can't chance being overheard." She turned listlessly away and Brad forgot her as the answer came to the questions he'd asked of himself.

"They couldn't put a shell around the stations because they needed the energy produced there to form the shells." Over the years of solitary research here, he'd formed the habit of thinking aloud in muttered, often hardly comprehensible phrases. "To form them, but not to maintain them. Maybe a hint in that."

What other clues had Fran Kozmer dropped, there in the cave? "He could set one up anywhere in the Region by pressing a stud on that panel. A signal to confederates? Doubt it. Improbable he had enough faceless men to scatter around or could secretly build that many installations. Some radiation then, directionally beamed from the cave. Impacting on the powercast beams somehow. But how?"

Brad prowled the room, another habit of the lonely years. "It's a shell, he said, and when Tarlin said it was hollow he didn't deny it. Naked force, he said. A bubble of force. Not really. A bubble presupposes a material film taking shape of least surface for given volume and force is not material. But then why a sphere?"

He narrowly avoided collision with the bits of apparatus strewn the room, almost but not quite was tripped by one of the cables that snaked all over its floor.

"Spherical force. Sphere implies rotating. That's it! It's a whirling, hollow ball of pure force. That's why so much power, to set it whirling. But what force? Not from the piles, a priori. Obviously not produced in the cavern. Then—yes."

It was coming now, almost too fast for him to put into words. "We know that the innumerable machines of a vast modern city, most of them at high potential, induce stresses, secondary forces, in space all about. Example, magnetic field around dyamo. Have ignored them since they were random-vectored, canceled one another out.

"Some way—not important how—Kozmer's radiation from machine in cave gathered all powercast beams at chosen point into a single one of almost incalculable total energy, directed it tangentially to that complex of stresses.

"Effect was to orient, polarize them and simultaneously sweep them into a whirlpool, a spinning sphere of forces that once set going maintains itself independently of the initiating beam. Since force—energy—and matter are intrinsically identical, this sphere acts like a bubble, like a shell of infinitely dense, hence impenetrable, matter."

"Okay." Halting in his prowling, Brad was dimly aware he was talking to Joan's back as she gazed raptly at the visiscreen. "I know now with what I've got to deal, can start figuring what made Starl think my—" A white flash from the screen broke his chain of thought and he heard the girl whisper, "They did it. They dared to do it."

"Do what?" Brad demanded.

There was no answer. He blinked at the wall, saw, as if from very high above, wild waters luridly lit, enclosed by land whose shape told him this was New York's Lower Bay—saw a vast abyss walled by a mountainous, upsurging wave and by the force-shell's black, incurving under-surface—saw a cloud-column spout up out of the monstrous chasm, a turbulent mass that, as it leaped skyward, was shot through by the dark lightnings that illumined Bay and land.

ROLLING, billowing in upon itself, the vaporous pillar climbed a thousand feet. Three thousand. Ten. It mushroomed, spurted another, darker cloud up out of the top of the screen.

"A bomb," Brad's stiff lips named the thing that had given birth to that cloud. "They made a fission bomb and took the chance of using it to break the shell."

The screened scene whirled, obviously cameraed from some aircraft at a safe distance and altitude. He looked now behind the cloud, along the sphere's surface—Its unbroken surface! It had defied the supposedly irresistible blast as it had vanquished the puny bulldozer.

Joan turned to him a face ravaged by despair. "It's no use, Brad. It's no use hoping any more." The world's watching billions, all mankind except the eighty millions coffered within the shells, knew that same despair. "They're lost. They're for-

ever lost. Nothing can save them."

She was in his arms, racked by tearing sobs. "Hush, baby," Brad murmured, holding her tight. "Hush. We've got each other. We've found one another and—holy smoke! I've got it!"

Joan lifted a tear-stained face from his chest. "What, darling?"

"What Starl Kozmer was driving at. Look. We've just seen the Scientists try to blast through the shell with the greatest force man has yet produced and fail. Why? Because the shell is force and you can't fight force with force, you can only change its direction. Starl knew that and he knew I had a way not to fight force but to obliterate it. He knew I was building a machine to extinguish the rays from a flaring pile."

"But what have rays got to do with force?"

"Everything, honey. Matter and energy and the rays that partake of the nature of both because they're the product of their transmutation, all are fundamentally one thing and that one thing is, very simply, motion. Everything—light waves, atoms with their orbiting protons and everything between—is motion. Stop motion and you destroy it. You destroy matter, the bridging rays and energy—force—the force that makes that shell. And I can do it."

He didn't know he had dropped Joan to the floor, didn't know he had dropped on the table to which he strode, the urathor pistol he had brandished all this time, forgetting he held it.

"Motion is a function of heat." He snatched from the table the tools he needed, whirled to the machine in the room's center. "The less motion, the less heat. The less heat, the less motion. In the complete absence of heat, at absolute zero, there would be no motion, therefore no rays."

This was what he'd told Starl Kozmer in that long ago talk in the Station refectory. "But no one had ever produced absolute zero. That's what I set out to do, to produce absolute zero at the surface of a flaring pile and so destroy the rays at its surface."

He was shifting connections as he talked, tightening screws, making the adjustments that were as clear-cut, as vivid in his brain as though diagrammed there in lines of fire.

"It had to be at the surface, Joan, because, if absolute cold were created within the pile, it could not function. That meant

my flare-quencher had to be outside the pile, had to focus on its walls from a distance."

Somewhere there was obtruding sound, but Brad was only dimly aware of it. "I have it. I almost have it. I can focus on anything within a hundred yards and almost instantaneously bring its temperature down to absolute zero, but to do that I pull heat from it, of course, and so my machine fuses.

"I haven't found a way to prevent that, but— Let go." Something had hold of his shoulder. "What the—?" He pawed at it, felt a hand, Joan's small hand, turned irritably to her white and frightened face.

"Brad," she whispered. "Listen!"

HE heard it now, another voice. "For the last time, open up." From the diaphragm over the entrance panel, hence the speaker was right outside. "Open up, Lilling. We're the police."

"The police." Brad's hands were back at their work but his brow was furrowed. "They must have seen the light in the window." He was making the final connection. "Wish they'd be quieter."

"Let us in," the raucous voice demanded, "or we blast in."

"You—!" Anger clamped Brad's throat as he twisted to the diaphragm, then he could speak again. "This is a private lab. It's inviolate and you know it." He turned back to the machine and made the last connection. "That's it," he sighed. "Now we've got to turn it so as to focus through the window. Help me, Joan."

"Of course." His shoulder butted a strut, the girl's another. "Heave." The machine did not move. "Heave." Muscles tightened in his legs, his back. "Heave."

"No use." The apparatus was not bolted down but it was too heavy for them. "Got to have help." Brad's eyes went to the door panel. "Those cops!" He leaped across to it. "You out there," he called. "I need your help. I'm letting you in."

"No, Brad, no!" But Joan's urgent whisper was too late. His neural aura completing the circuit, he'd flicked the latch and the panel was sliding open as he darted back to the flare-quencher. Light fell across the gray-green uniform of one, then another, and a third man, coming through, bazookas ready for action. The first, tall, lean, lantern-jawed, spied Brad, grinned humorlessly.

"You're Lilling, all right. You're under arrest."

"Yes, yes—I know. Look, you get hold of this here, and you there, and—"

"What the— What's the idea?"

"You've got to help me turn this machine around so I can break the shell."

"Oh, sure." The tall man was moving toward him, wary. "Sure we'll help you—in a pig's eye." His weapon held on Brad, pointblank. "We've just got warning that if you showed up here you'd try to pull some phoney like that." He'd stopped short, the other two crowding him, fear of the unknown crawling in their eyes. "Get away from that dingus, mister. Don't touch it."

"But I tell you—" A green light-thread flicked past the tall man's ear, splattered the wall. "The next one goes into you," Joan said quietly from behind the policeman, "unless you drop that gun." Her eyes were blue fire and in her steady hand was the urathor pistol she'd picked up from the table. Even Brad had not seen her slip around behind the cops, and as their attention had been concentrated on him, they'd not expected to find anyone else in here.

"Drop them, all of you, or I'll fire."

Three bazookas thudded to the floor. "Thank you." Her voice was thin and cold. "All right, Brad. Kick those back here to me, then tell them what you want them to do."

He told them. They protested but Joan's pistol convinced them they ought to put their shoulders to the machine. It slewed around, slowly, ponderously.

"Okay." Brad grunted. "That's the way I want it. Now let me at it."

They seemed very glad to move back and stand watching him. They were brave men. They would have faced unflinchingly any peril they understood but this was something they did not understand.

Brad had forgotten them. He was aware only of the lever on which his right hand closed, of the window he faced and the black wall, fifty yards outside the window, behind which twenty million human beings were imprisoned. This machine, this untried theory of his was their last chance, the last chance of sixty million more, to escape the living death they faced.

If his theory was wrong, if his machine failed, they were irrevocably doomed.

The lever moved under his hand. A shaft, not of light but of the absence of light leaped through the window to that lightless curtain.

And nothing happened—nothing except that the lever was too hot to hold. Brad snatched his hand from it but he didn't know it was burned. The machine glowed dully red, then brilliant orange. Now it was an eye-searing, transparent white and the heat drove Brad back, step by step, from this machine of his that had failed.

It blurred, was melting— Out there, where lightless shaft met lightless wall, there was a soundless, brilliant coruscation of sparks.

And suddenly there was no curtain, no blank void. There was, instead, the vista at which Brad Lilling had gazed so often, a landscaped expanse, gardens, then buildings pallid in starglow and more and more build-

ings piling even higher into the stardusted sky. And, suddenly, light— The soaring arabesques of varicolored light that is New York at night.

Hands pulled Brad Lilling back from something that had been a machine and now was a shapeless mass of molten metal spreading across the floor. That didn't matter. He could build more machines like this, one for each city that was no longer doomed.

Somewhere there was cheering, a vast, prayerful chorus but Brad was aware only of a shining flowerlike face, of eyes that were twin, shining stars, of the warm and pulsant form crushed to his.

And of the velvet lips that his lips sought thirstily.

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By GEORGE O. SMITH

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"What's the charge against you?" asked the little man. "Buying souls above the ceiling price?"

PILE OF TROUBLE

By HENRY KUTTNER

The miraculous Hogbens have to move when their flying makes too much commotion, but the trouble they flee is nothing compared to what their atom pile soon stirs up!

WE CALLED Lemuel, "Gimpy," on account of he had three legs. After he got his growth, about the time they fit the War Between the States, he was

willing to keep his extra leg sort of tucked up behind him inside his britches, where it would be out of sight and people wouldn't talk. Course it made him look a little like one

of them camel critters, but then Lemuel never was vain. It was lucky he was double-jointed, though, or he might of got cramps from keeping his leg tucked up thataway.

We hadn't seen Lemuel for some sixty years. He was living in the southern part of the mountains, and the rest of us was up in northern Kaintuck. And I guess we wouldn't of got in that trouble if Lemuel hadn't been so blame shiftless. It looked like big trouble for a while. We Hogbens had had plenty of that before we moved to Piperville, what with people peeping and prying and trying to find out why the dogs barked so much for miles around. It got so we couldn't do no flying at all. Finally grandpaw said we'd just better pull up stakes and move down south where Lemuel was staying.

I hate moving. That trip to Plymouth Rock made me sick to my stummick. I'd ruther of flew. But grandpaw's the boss.

He made us hire a truck and load everything in it. We had trouble getting the baby in; he don't weigh more'n three hundred pound, but that tank we got to keep him in is purty bulky. No trouble about grandpaw, though; we just tied him up in an old gunny-sack and shoved him under the seat. I had to do all the work. Paw had got at the corn likker and was plomb silly. He kept hopping around on the top of his haid and singing something called, "The World Turned Upside-Down."

Uncle wouldn't come. He'd dug himself in under the corn-crib and said he was gonna hibernate fer ten years or so. We just left him there. "Allus traveling around," he kept complaining. "Cain't stay put. Every five hundred years or so, bang! Traipsin' off summers. Go on, git!"

So we got.

Lemuel, the one we used to call Gimpy, was one of the family. Seems there was a dust-up when we first came to Kaintuck—the way I heard it. Everybody was supposed to pitch in and help build a house, but not Lemuel—he wouldn't. Plomb shiftless. He flew off to the south. Every year or two he'd wake up a little and we'd hear him thinking, but mostly he just sot.

We figgered we'd live with him fer a while. That's what we did.

Seems like Lemuel lived in an old water-mill in the mountains up over a town called Piperville. It was kind of ramshackle. Lemuel was on the porch. He'd been sitting in a chair, but it had fallen down some while

before, and he hadn't bothered to wake up to fix it. So he sat there in the middle of his whiskers, breathing a trifle. He was having a nice dream. We didn't wake him up. We toted the baby in the house, and grandpaw and Paw started carrying in the bottles of corn.

THAT was how we settled in. It warn't exactly convenient at first. Lemuel was too remarkable shiftless to keep vittles in the house. He'd wake up enough to hypnotize a coon, back somewheres in the woods, and purty soon the coon would come wandering along looking dazed, ready to be et. Lemuel had to eat coons mostly because they're clever with their paws, which are sort of like hands. You can call me a weasel if that shiftless Lem didn't hypnotize the coons into building a fire and cooking themselves. I never figgered out how he got the critters skun. Maybe he spit out the fur. Some people are just too lazy for anything.

When he got thirsty, he made it rain a little over his haid and opened his mouth. It was shameful.

Nobody paid no attention to Lemuel, though. Maw got busy. Paw, natcherally, snuck off with a jug of corn, and I had to do all the work. 'Twarn't much. Main trouble was we needed some sort of power. Keeping the baby alive in his tank uses up a lot of current, and grandpaw drinks electricity like a hawg sucks up swill. Ef'n Lemuel had kept the water running in the stream, we'd of had no trouble, but that was Lemuel! He just let it dry up. There was a trickle, no more.

Maw helped me build a gadget in the hen-house, and after that we got all the power we needed.

The trouble all started when a skinny little runt come up the trail one day and seemed surprised to see maw take the washing out in the yard. I trailed along, interested like.

"Right nice day," Maw said. "Want a drink, stranger?"

He said he didn't mind if'n he did, so I got him a dipper full, and after he had drunk the corn he took a few gasping breaths and said, thanks, no, he didn't want any more just then or ever. He said he could cut his throat cheaper, and get the same effect.

"Just moved in here?" he asked.

Maw said yes, we had, and Lemuel was a relative. The feller looked at Lemuel, sitting on the porch with his eyes shut, and said, "You mean he's alive?"

"Shore is," Maw said. "Alive and kicking, so to speak."

"We thought he'd been dead for years," the man said. "That's why we never bothered about collecting the poll tax for him. I guess you'd better pay yours, too, now that you've moved in. How many of you are there?"

"Bout six," Maw said.

"All of age?"

"There's Paw and Saunk and the baby—" "How old?"

"The baby's about four hundred now, ain't he, Maw?" I asked, but she clouted me 'long-side the haid and said I should shet up. The man pointed at me and said he'd meant how old was I. Heck, I couldn't tell him. I lost track round about Cromwell's time. Finally he said we'd all have to pay a poll tax except the baby.

"Not that it matters," he said, writing in a little book. "You have to vote the right way in this town. The Machine's in to stay. There's only one boss in Piperville, and his name's Eli Gandy. Twenty dollars that'll be."

Maw told me to git some money, so I went searchin'. Grandpaw didn't have anything except something he said was a denarius, and that was his lucky piece anyhow; he said he'd swiped it from a feller named Julius up in Gaul. Paw was daid drunk. The baby had three dollars. I went and looked through Lemuel's pockets but didn't find nothing but an old oriole's nest with two eggs in it.

When I told Maw, she scratched her haid, so I said, "We can make some by tomorrow, Maw. You'll take gold, won't you, Mister?"

MAW clouted me. The man looked kind of funny and said sure, he'd take gold. Then he went away through the woods carrying a bundle of twigs fer firewood, and I figgered Lemuel was getting hungry. The man started to walk faster.

I started looking fer some old iron I could change into gold.

The next day we got carted off to jail.

We knew about it in advance, of course, but there wasn't much we could do. It's allus been our idea to keep our haid down and not attract no special attention. That's what Grandpaw told us to do now. We all went up to the attic—all but the baby and Lemuel, who never stirred—and I kept looking at a spider-web up in one corner, so I wouldn't have to look at Grandpaw. He hurts my eyes.

"Out upon them for stinkard knaves,"

Grandpaw said. "'Tis best that we go to

their gaol; the days of the Inquisition are over. 'Twill be safe enough."

"Cain't we hide that thar gadget we made?" I asked him.

Maw clouted me fer speaking before my elders. "That won't do no good," she said. "Them spies from Piperville was up here this morning and seen it."

Grandpaw said, "Have you hollowed a cavern under this house? Good. Hide me and the baby there. The rest of you—" He relapsed into old-fashioned language. "'Tis pity if we were to live thus long and be found out by these black-avised dullards. 'Twere better their weasands were slit. Nay, Saunk—I spoke in jest. We would not call attention to ourselves. We will find a way."

That was the way it was. We all got toted off, all but Grandpaw and the baby, who were down in the cave by that time. We got carried off to Piperville and put in the hoosegow. Lemuel never woke up. They drug him off by the heels.

As fer Paw, he stayed drunk. He's got a trick he knows. He can drink corn, and then, as I understand it, the alcohol goes in his blood and gets changed into sugar or something. Magic, I guess. He tried to explain it to me, but it made uncommon bad sense. Likker goes into your stummick; how kin it go up inside your skull and turn into sugar? Plumb silly. Or conjure, anyhow. But what I was going to say, Paw says he's trained some friends of his named enzymes—fur-riners, by the name—so they change the sugar right back to alcohol, and he kin stay drunk as long as he wants. Still, he likes fresh corn if he can get it. Me, I don't like them conjure tricks; they make me skittery.

I was took into a room with people in it and told to sit down in a chair. They asked me questions. I played dumb. I said I didn't know nothing.

"It's impossible!" somebody said. "They couldn't have built it themselves—illiterate hill-billies! But, unmistakably, there's a uranium pile in their hen house!"

Shucks.

I kept on playing dumb. After a while they took me back to my cell. There was bedbugs. I made a sort of ray come out of my eyes and killed 'em off, much to the surprise of a seedy little feller with pink whiskers who was asleep in the upper bunk, and who I didn't notice was awake till it was too late.

"I have been in some strange prisons in

my time," said the seedy little feller, blinking rapid, "and I have had some unusual cell-mates, but never yet have I encountered one whom I suspected to be the devil. My name is Armbruster, Stinky Armbruster, and I'm up for vagrancy. What's the charge against you, my friend? Buying souls over the celling price?"

I said I was pleased to meet him. I had to admire his language. He had eddication something fearful.

"Mr. Armbruster," I said, "I got no idea why I'm here. They just carted me off—Paw and Maw and Lemuel. Lemuel's asleep, though, and Paw's drunk."

"I would like to be drunk," Mr. Armbruster told me. "Then I wouldn't be so surprised to see you floating two feet off the floor."

THAT kind of embarrassed me. Nobody likes to be caught doing things like that. It was just that I was absentminded, but I felt foolish. I said I was sorry.

"It doesn't matter," Mr. Armbruster said, rolling over and scratching his whiskers. "I've been expecting this for years. I've had a pleasant life, all in all. And this is a delightful way to go crazy. Why did you say they arrested you?"

"They said we had a uranium pile," I told him. "I bet we ain't. We got a wood pile, I know, 'cause I chopped the wood. But I know I never chopped no uranium."

"You'd remember it if you had," he said. "It's probably some political gambit. Election's a week off. There's a reform party starting, and old Gandy's smashing it before it can start."

"Well, we ought to be getting home," I said.

"Where do you live?"

I told him, and he thought that over. "I wonder. You're on the river, aren't you—the creek, I mean? Big Bear?"

"It ain't even a creek," I said.

Mr. Armbruster laughed. "Gandy called it the Big Bear River. That was before he got the Gandy Dam built, down below your place. There hasn't been any water in that creek for fifty years, but old Gandy put through an appropriation for I don't know how much money, about ten years ago. He got the dam built by calling the creek a river."

"What did he want to do that for?" I asked.

"Do you know how much crooked money you can make out of building a dam?" Mr. Armbruster asked me. "But Gandy's in to

stay, I guess. When a man owns the newspapers, he can write his own ticket. Oh-oh. Here comes somebody."

A man come with keys and took Mr. Armbruster away. After quite awhile somebody else come and let me out. I was took into another room full of lights. Mr. Armbruster was there, and Maw and Paw and Lemuel, and some big fellers with guns. There was a little skinny wizened man with a bald head and snaky eyes, and everybody done what he told 'em. They called him Mr. Gandy.

"This boy's an ordinary hill-billy," Mr. Armbruster said, when I come in. "If he's got into trouble, it must be by accident."

They told him to keep quiet and banged him one. So he kept quiet. That Mr. Gandy sat off in a corner and sort of nodded, looking mean. He had a bad eye. "Listen, boy," he said to me. "Who are you shielding? Who built that uranium pile in your woodshed? You'd better tell me the truth or you'll get hurt."

I just looked at him, so somebody hit me on top of the haid. Shucks. You can't hurt a Hogben by hitting him on the haid. I recollect the time the feuding Adamases cotched me and banged me on the haid till they was plumb wore out and couldn't even squeal when I dumped 'em down a cistern.

Mr. Armbruster made noises.

"Listen, Mr. Gandy," he said. "I know it'll make a big story if you find out who built that uranium pile, but you'll get re-elected without it. Maybe it isn't a uranium pile anyway."

"I know who built it," Mr. Gandy said. "Renegade scientists. Or escaped Nazi war criminals. And I intend to find them!"

"Oh-oh," said Mr. Armbruster. "Now I get the idea. A story like that would be nationwide, wouldn't it? You could run for Governor or the Senate or—write your own ticket."

"What did that boy tell you?" Mr. Gandy asked. But Mr. Armbruster said I hadn't told him nothing.

Then they started to whup Lemuel.

It was tiresome. Nobody can't wake up Lemuel when he's sot on a nap, and I never seen nobody so sot just then. They give him up fer daid after a time. He might as well of been. Lemuel is so bone lazy that when he's sleeping hard he don't even trouble to breathe.

Paw was working magic with them enzyme friends of his'n, and he was remarkable

drunk. It sort of tickled him to get whupped. Every time they whammed him with a length of hose he giggled kind of foolish. I was ashamed.

NOBODY tried to whup Maw. When anybody got close enough to hit her, he'd go all over white as a goose wing and start busting out with sweat and shaking. Once we knowed a perfesser feller who said Maw could emit a tight-beam sub-sonic. He was a liar. She just made a noise nobody could hear and aimed it wherever she wanted. All them high-falutin words! Simple as firing a squirrel-rifle. I can do it myself.

Mr. Gandy said to take us back to where we was, and he'd see us later. So they drug out Lemuel, and we all went back to our cells. Mr. Armbruster had a lump on his haid the size of a duck egg. He lay down on his bunk moaning, and I sot in a corner looking at his haid, and sort of shooting a light out of my eyes, only nobody couldn't see the light. What it did was—shucks, I ain't edicated. It worked like a poultice, anyhow. After a while the bump on Mr. Armbruster's haid went away, and he stopped groaning.

"You're in trouble, Saunk," he said—I had told him my name by then. "Gandy's got big ideas now. And he's got the people of Piper-ville hypnotized. What he wants is to hypnotize the state, or even the nation. He wants to be a national figure. The right sort of news story could do that for him. Besides, it would ensure his reelection next week—not that he needs insurance. He's got the city in his pocket. Was that a uranium pile?"

I just looked at him.

"Gandy seems certain," he went on. "He sent up some physicists, and they said it was apparently Two-Thirty-Five with the graphite dampers. Saunk, I heard them talking. For your own good, you'd better not shield anyone. They're going to use a truth-drug on you—sodium pentathol or scopolamine."

"You better go to sleep," I said, because I heard Grandpaw calling me, inside my haid. I shet my eyes and listened. "Twarn't simple, because Paw kept tuning in. Oh, my, he was drunk!"

"Have a drink," Paw said cheerful, only without talking, if you understand.

"Beshrew thee for a warrantable louse," Grandpaw said, much less cheerful. "Get thy dullard mind away from here. Saunk!"

"Yes, Grandpaw," I said, silent like.

"We must make a plan—"

Paw said, "Have a drink, Saunk."

"Now, Paw, do shet up," I told him. "Have some respect for your elders. I mean Grandpaw. Besides, how can I have a drink? You're 'way off in some other cell."

"I got me a pipeline," Paw said. "I can give you a what-you-call-it, a transfusion. Teleportation, that's what it is. I just short-circuit space between your blood-stream and mine and I can pump alcohol from my veins into your'n. Look, this is how I do it." He showed me how, in a sort of picture inside my haid. It looked easy enough. For a Hogben, I mean.

I got mad. "Paw," I said, "don't make your loving son disrespect you more than natcheral, you runty old woodshoat, you. I know you ain't got no book-larnin'. You're just picking them four-bit words out of somebody's skull."

"Have a drink," Paw said, and then yelled. I heard Grandpaw chuckle.

"Stealing the wisdom from men's minds, eh?" he said. "I, too, can do that. I have just rapidly cultured a migraine virus in my bloodstream and teleported it to your brain—you gorbellied knave! A plague upon the varles! Hearken to me, Saunk. Thy rascally sire will not trouble us bewhiles."

"Yes, Grandpaw," I said. "Are you fit?"

"Aye."

"And the baby?"

"Aye. But you must act. 'Tis your task, Saunk. The trouble lies in that—what is the word? That uranium pile."

"So that's what it is," I said.

"Who would have thought anyone in the world could recognize it? My own grandsire told me how to make it; they existed in his time. Indeed, 'twas through such things that we Hogbens became mutants. Faith, I must pick a brain myself to make this clear. There are men in the town where you are, Saunk, who know the words I need—let me see."

He sort of shuffled through a few brains. Then he went on.

"When my grandsire lived, men had begun to split the atom. There were—um—secondary radiations. They affected the genes and chromosomes of some men and women—a dominant mutation, with us Hogbens. So we are mutants."

"That's what Roger Bacon said, wasn't it?" I asked.

"Aye. But he was friendly and kept silence. Had men known our powers in those days, we'd have been burned. Even today, it would

not be safe for us to reveal ourselves. Eventually—you know what we plan eventually, Saunk."

"Yes, Grandpaw," I said, for I did know.

"Well, here's the rub. It seems that men have split the atom again. Thus they were able to recognize this uranium pile. We must destroy it; we do not want men's eyes upon us. Yet we need power. Not much, but some. The uranium pile was the easiest way to get it, but we cannot use it now. Saunk, here is what you must do—so that enough energy will be supplied for the baby and for me."

He told me what to do.

Then I went and done it.

WHEN I sort of shift my eyes, I can see real purty things. Like them bars on the window, I mean. They get busted up into teeny-weeny little bits, all rushing around like they was crazy. I hear tell them is atoms. My, they look cheerful—all bustling like they was hurrying to git to meeting on a Sunday. 'Course it's easy to juggle 'em like blocks. You look real hard and make something come out of your eyes, and more teeny little fellers come busting out of your eyes and they all get together and it's mighty amusing. I made a mistake the first time and changed them iron bars into gold. Missed an atom, I expect. But after that I got it right and turned the bars into nothing much. I clomb out and turned 'em back into iron. First I'd made sure Mr. Armbruster was asleep. That was easy.

We was seven stories up above the street, in a big building that was part the city hall and part jail. It was nighttime, so nobody noticed me. I flew away. Once an owl came past, figgering I couldn't see in the dark, and I spit on him. Hit him, too.

I fixed that there uranium pile. There was guards around it with lights, but I hung up in the sky where they couldn't see me and got busy. First I hotted the thing up so the stuff Mr. Armbruster had called graphite turned into nothing and blew away. Then it was safe to handle the rest of the junk—Two-Thirty-Five, is it?—so I did, and I turned that into lead. The real crumbly kind. I made it so fearful crumbly it started to blow away. Soon there wasn't nothing left.

Then I flew away up the crick. There was only a dollop of water in it, and Grandpaw said he needed more than that. I got way up in the mountains, but didn't have no luck. Grandpaw started to talk to me. He said the

baby was crying. I guess I shouldn't have tore up the uranium pile till I'd made plumb certain of getting more power.

Only thing to do was to make it rain.

There are several ways to do that, but I friz a cloud, sort of. Had to land and build a gadget fast and then fly way up where there was clouds; it took time, but pretty soon there was a thunderstorm coming up, and then it rained. But the water didn't go down the crick. I searched for a while, till I found a place where the whole crick bottom had fell out. Seems like there was caves underneath. I did some rapid plugging. No wonder there hadn't been no water to speak of in the crick for so long. I fixed that.


Grandpaw wanted a steady supply, though, and I smelled around till I located some big springs. I opened them up. By that time it was raining oncommon rapid. I went back to see Grandpaw.

Them men who was on guard had gone home, I guess. Grandpaw said the baby had plumb upset them when he started crying. They all stuck their fingers in their ears and screamed and run off. I looked over the water-wheel, like Grandpaw told me, and done a few repairs. There warn't much needed. They built purty good a hundred years ago—and the wood had got seasoned, too. I admired that wheel, turning and turning as the water piled up in the crick—crick, nothing! It was a river now.

But Grandpaw said I oughta of seen the Applan Way when it was being set up.

I fixed him and the baby up nice and comfortable, and then I flew back to Piperville. It was coming on dawn, and I didn't want nobody to see me flying. This time I spit on a pigeon.

There was a rumpus going on in the city hall. Seems like Maw and Paw and Lemuel had plumb vanished. There was people running around remarkable upset, and there was great confusion. I knowed what had happened, though. Maw spoke to me, in my haid, and told me to come up to the cell at the end of the block, which was spacious. They was all there. Invisible, though.

I fergot to say I'd made myself invisible  after I'd snuck in, seen Mr. Armbruster was still asleep, and noticed the excitement.

"Grandpaw told me what was happening," Maw said. "I figgered we'd better stay out'n the way for awhile. Raining hard, ain't it?"

"Shore is," I said. "What's everybody so excited about?"

"They cain't figger out what become of us," Maw told me. "Soon as the ruckus quiets down, we'll all go home. You fixed it, I guess."

"I done what Grandpaw, said," I explained, and then there was sudden yells from down the corridor. A little old fat coon came trundling in, carrying a bundle of sticks. He come right along till he got to the bars in front of where we was. Then he sot himself down and begun arranging the sticks to make a fire. He had that dazed look in his eyes, so I knew Lemuel must of hypnotized him.

PEOPLE came crowding around outside. They couldn't see us, natcherally, but they were watching that there little old coon. I watched too, on account of I never was able to figger out how Lemuel could get the critter skun. I seen them build fires before—Lemuel could make 'em do that—but I just never happened to be around when one of his coons stripped down and skun hisself. That I wanted to see.

Just before the coon got started, though, a policeman put him in a bag and took him away, so I never did know. It was light by then. I kept hearing bellers from somewhere, and once I heard a voice I knew sing out.

"Maw," I said, "that sounds like Mr. Armbruster. I better go see what they're doing to the pore little guy."

"Time we was going home," she said. "We got to dig up Grandpaw and the baby. You say the water-wheel's turning?"

"Yes, Maw," I said. "There's plenty electric power now."

She reached around till she found Paw and whammed him. "Wake up," she said.

"Have a drink," Paw said.

But she roused him up and said we was going home. Ain't nobody can wake up Lemuel, though. Finally Maw and Paw took Lemuel between them and flew out through the window, after I fixed the bars so they could get through. They stayed invisible, on account of there was a crowd down below. It was still raining, but Maw said they warn't made of sugar nor salt, and I'd better come along or I'd get my britches tanned.

"Yes, Maw," I said, but I wasn't going to. I stayed behind. I was going to find out what they was doing to Mr. Armbruster.

They had him in that big room with the lights on. Mr. Gandy was standing by the window, looking real mean, and they had Mr.

Armbruster's sleeve rolled up and was going to stick a sort of glass needle into his hide. Well! Right away I made myself get visible again.

"You better not do that," I said.

"It's the Hogben kid!" somebody yelled. "Grab him!"

They grabbed me. I let 'em. Pretty soon I was sitting in a chair with my sleeve rolled up, and Mr. Gandy was grinning at me like a wolf.

"Use the truth-serum on him," he said. "No need to ask that tramp questions now."

Kind of dazed, Mr. Armbruster kept saying, "I don't know what happened to Saunk! I wouldn't tell you if I knew—"

They whammed him.

Mr. Gandy stuck his face right into mine.

"We'll get the truth about that uranium pile now," he told me. "One shot of this and you'll answer our questions. Understand?"

So they stuck the needle in my arm and squirted the stuff into me. It tickled.

Then they asked me questions. I said I didn't know nothing. Mr. Gandy said to give me another shot. They done it.

It tickled worse than ever.

Right then somebody ran into the room and started yelling.

"The dam's busted!" he bellered. "The Gandy Dam! It's flooded out half the farms in the south valley!"

Mr. Gandy rared back and squalled. "You're crazy!" he told everybody. "It's impossible! There's been no water in Big Bear River for a hundred years!"

Then they all got together and started whispering. Something about samples. And a big mob downstairs.

"You've got to calm 'em down," somebody told Mr. Gandy. "They're boiling mad. All the crops ruined—"

"I'll calm 'em down," Mr. Gandy said. "There's no proof. And only a week before election!"

He rushed out of the room and everybody ran out after him. I got up out of my chair and scratched. That stuff they pumped into me itched fearful inside my skin. I was kind of mad at Mr. Gandy.

"Quick!" Mr. Armbruster said. "Let's sneak out. Now's our chance."

WE SNUCK out the back way. It was easy. We circled around to the front, and there was a big mob standing there in the rain. Up on the court-house steps was

Mr. Gandy, mean as ever, facing a big, husky feller who was waving a chunk of rock.

"Every dam has its breaking point," Mr. Gandy said, but the big feller roared and shook the rock over his head.

"I know good concrete from bad!" he bellowed. "This stuff's all sand. That dam wouldn't hold a gallon of water backed up behind it!"

Mr. Gandy shook his head.

"Outrageous!" he said. "I'm just as shocked as you are. Of course we gave out the contracts in all good faith. If the Ajax Construction Company used shoddy material, we'll certainly sue them."

At that point I got so tired of itching that I decided to do something about. So I did.

The husky feller stepped back a pace and pointed his finger at Mr. Gandy. "Listen," he said. "There's a rumor around that you own the Ajax Construction Company. Do you?"

Mr. Gandy opened his mouth and closed it. He shivered a little.

"Yes," he said. "Yes, I own it."

You should've heard the roar that went up from that mob.

The big feller sort of gasped.

"You admit it? Maybe you'll admit that you knew the dam was no good, too, huh? How much did you make out of the deal?"

"Eleven thousand dollars," Mr. Gandy said. "That was net, after I'd paid off the sheriff, the aldermen, and—"

But at that point the crowd sort of moved up the steps, and there wasn't no more heard from Mr. Gandy.

"Well, well," said Mr. Armbruster. "Now I've seen everything. Know what this means, Saunk? Gandy's gone crazy. He must have. But the reform administration will go in, they'll throw out all the crooks, and I will have a pleasant life in Piperville once more. Until I move south, that is. Come winter, I always move south. By a strange happenstance, I find I have a few coins in my pocket. Will you join me in a drink, Saunk?"

"No, thanks," I said. "Maw'll be wondering

where I got to. Won't there be no more trouble, Mr. Armbruster?"

"Eventually," he said. "But not for quite a while. They're carrying old Gandy into the jail, see? For his own protection, probably. I must celebrate this, Saunk. Sure you won't—Saunk! Where are you?"

But I had went invisible.

Well, that was all there was to it. I didn't itch no more, so I flew back home and helped rig up the electric current from the water-wheel. After a time the flood died down, but we got a steady flow down the crick thereafter, because of the way I'd arranged things upstream. We settled down to the sort of quiet life we Hogbens like. It's safest, for us.

Grandpaw said it was quite a flood. It reminded him of something his Grandpaw had told him. Seems like when Grandpaw's Grandpaw was alive, they had uranium piles and a lot more, and pretty soon the things got out of hand and they had a real flood. Grandpaw's Grandpaw had to move out of the country right fast. Ain't nothing been heard of the place from that day to this. I gather everybody in Atlantis got drowned daid. But they was only furriners.

Mr. Gandy went to jail. Nobody ever knew what made him confess the way he did; maybe he got an attack of conscience. I don't suppose it could've been because of me. 'Tain't likely. Still—

Remember that trick Paw showed me about making a short-circuit in space and pumping the corn likker from his blood into mine? Well, I got tired of itching where I couldn't scratch it, so I used that trick myself. That stuff they'd squirted into me was making me itch, whatever it was. I just twisted space around a mite and pumped it right into Mr. Gandy's blood, up where he was standing on them court-house steps. After that I stopped itching, but Mr. Gandy must have been itching real bad. Served him right, though.

Wonder if it could've plumb itched him into telling the truth?

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AND THE MOON BE STILL AS BRIGHT

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THIEVES OF TIME

By ARTHUR J. BURKS

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CHAPTER I

Missing Cargo

THE SIGN said that the part of the *Rio Tapajós* prow forward of the *commandante's* cabin was reserved for officers. But the sign was in Portuguese so I could ignore it, being an American. That was how it happened that I was not far from the helmsman when something odd happened.

The *Rio Tapajós* had come down the Tapajós from Sao Luiz, loaded to the guards with rubber and *caucho*, pelts, *farinha*, tobacco and sugar. I could have retired for life on what the cargo on that old wood-burning steamer was worth, and I wasn't even paying my passage because I was a guest of the management. The old tub was deep in the water. It had been making heavy going of the Amazon, even downstream.

All at once, she rose in the water as if she



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An Astonishing Novelet

"Suddenly, I saw my husband
again at the bend of the trail,
further away"



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were about to take off. She gathered speed, while the *caboclo* at the wheel looked fearful, his mouth hanging open and his tongue sagging over his lower lip. It was as if her cargo had become light as nothing at all. A perceptible change ran all through the vessel.

The skipper, Antonio Queiroz, who had been forty years on the river and knew its every mood, came out of his cabin with sleep in his eyes and his gray hair all awry. He'd felt something, of course. I felt sorry for him, a little. I'd gone up-river with him months ago and for ten days and nights he had got almost no sleep.

"What's wrong?" he asked the helmsman.

"I don't know, sir. She suddenly went light!"

Queiroz went to the port side and looked down, repeated the maneuver on the starboard side. His face—more Indian than European—paled. He stared ahead at the smoke clouds, the buildings and the long wharves which represented the capital of Para Province, Belém.

There was a crowd of people on the deck awaiting the arrival of the *Rio Tapajós* with her rich cargo.

I felt apprehensive. Strange things still were happening. As we swung our prow to starboard, following the buoys in to the landing place, there were repeated splashes on the port side—and I looked down to see fully a score of men in the water, swimming strongly for shore. I'd been ten days on the boat and knew their faces: they were the *caboclos*, unlettered river men, who acted as the vessel's crew, and handled all cargo.

Queiroz stared, then yelled for them to come back. He might as well have spared his breath; if anything the men swam faster.

QUEIROZ went below. When he returned in a few minutes, his face was dead white. Something had happened he couldn't explain.

"What's wrong, *Commandante*?" I asked.

"The cargo!" he said. "It's gone! There isn't a ball of rubber, a cube of *caucho*, a pelt or a bow of tobacco aboard us!"

That seemed impossible! Cargoes running into hundreds of tons didn't disappear from steamers under way on the Amazon, or on any river.

"Where did it go?"

Queiroz just shook his head. He was dazed. But he did the automatic things, warping his steamer into the dock. Dock

hands took the lines and did the jobs the crew would have done if the crew hadn't deserted. As all this was going on I noticed a peculiar circumstance.

Queiroz was beside me, staring. On the side of the dock, beside a huge pile of cargo, stood the owner of the *Rio Tapajós*, a stunned look on his face. The cargo of the "*Tappy*" belonged to that tall American. It came from his vast holdings on the Upper Tapajós River, where I had just spent four months.

That cargo on the wharf, at which Queiroz and Peter Gannet, the owner, stared in disbelief, was the cargo of the *Rio Tapajós*!

I couldn't believe it, yet there it was. I knew, because I'd watched every piece of cargo being loaded.

Somehow the cargo which had left Sao Luiz in our hold had reached shore ahead of the steamer which had brought it!

I went ashore with Queiroz, Peter Gannet met us without a word. I knew he couldn't have said anything if his life had depended on it. As we went ashore, I noted three big signs which hedged the cargo in:

PROPERTY OF PROCRAS, INC.

A smiling almost priestly looking man came to meet us.

"This man's name," said Gannet, "is Lester Killion. Killion, this is my *commandante*, Queiroz."

"I know your great captain very well, Mr. Gannet," said Killion. "We are old friends."

"Mr. Gannet," said Queiroz, his voice sounding like the squeak of a caught mouse. "I have never seen this man before in my life!"

Killion looked amused. His eyes danced. He was hugely enjoying himself.

"Do you deny, Queiroz," asked Killion, "that you sold me the *Tappy's* cargo for ninety thousand dollars?"

Queiroz choked, swayed like a man stunned by a blow on the head.

"I repeat, I have never seen you before," said Queiroz.

"Queiroz," said Gannet, "I don't know how you did it, but this man has already shown me your receipt for ninety thousand dollars for the cargo of the *Rio Tapajós*, and that receipt is binding on us. Where is the money?"

Before Queiroz could answer, I horned in.

"It's impossible, Gannet," I told the owner. "We just got here. You and every-

body on the quay saw us tie up."

"Did you sleep soundly last night, Rome?" Gannet snapped at me.

My name is Leland Rome, and I'd been working for Gannet as an investigator.

"Like a top," I told Gannet.

"Why couldn't Queiroz have come in last night, sold the cargo to Killion here, and gone back out, to make a second appearance this morning, causing an utterly fantastic—"

Gannet stopped there, on the word "fantastic," realizing how fantastic this idea was. Queiroz could never have done such a thing. He would have needed his crew, everybody aboard the *Rio Tapajós*, to accomplish it. My heart went cold when I remembered how his crew had swum to shore. I remembered the helmsman, and how the steamer had suddenly gone light in the water and picked up speed.

"May I see the signature on that receipt, Mr. Killion?" asked Queiroz.

KILLION handed it over. All of us gathered around Queiroz to take a look. I'd seen several specimens of Queiroz' handwriting and this was it, all right. Queiroz gave a sob and passed out cold. Killion grinned down at him. Then he looked at Gannet.

"Do you question your official's signature, Gannet?"

Dazed, Gannet shook his head. Killion bowed, looking more priestly than ever, and turned his back on us. Gannet followed as I lifted Queiroz and toted back aboard the *Tapajó* to his cabin and Gannet sent for a doctor.

"I suppose," said Gannet, "there is no use looking for the ninety thousand dollars aboard the *Tappy*."

"We just got here," I insisted. "Can't you believe that?"

"Look!" said Gannet dully, pointing to the shoreline, where I noticed something that had somehow escaped my attention before. The docks, fully a mile long, were piled high with cargo, worth millions perhaps.

Before every separate cargo, as far as I could see to read, appeared the sign:

PROPERTY OF PROCAS, INC.

"I could give Queiroz the benefit of the doubt," said Gannet, awe and perhaps a touch of terror in his voice. "In fact, I have no choice. It's unthinkable, unbelievable, that every *commandante* of every heavi-

ly laden steamer, sailboat and auxiliary vessel, due here this morning, should have come in last night and sold its cargo to Procas, Incorporated, gone back out into the Bay of Guajará, to return to the dock this morning, on time, without the sales price for the cargo, and with no explanation."

"What is the explanation?" I asked.

"Probably we've all gone completely crazy!" said Gannet.

I thought back and wondered about myself, until I recalled the lightening of the *Rio Tapajós*, the desertion of the crew. No, I wasn't crazy.

"We're sane, Gannet," I said. "And I think I know where your ninety thousand dollars is."

"So? Where?"

"Somewhere in the borderland of time which has to be explained before we know how all this happened. On the face of it, that is. Or maybe the ninety thousand dollars is in the possession of Procas, Incorporated, or the priestly Mr. Killion!"

"You wouldn't, Mr. Rome, be accusing Procas, Incorporated or me of *stealing* the ninety thousand dollars?"

Gannet and I whirled and there was Killion again. But his half-smile was gone. Killion continued:

"Foreigners have been murdered for much less than ninety thousand dollars, here in Brazil, Mr. Rome!"

That was plain enough. I got it, and so did Gannet. Killion was warning me to keep my nose out of his business.

While we stood there, the whole waterfront seethed with Portuguese chatter as hundreds of dock workers, owners, secretaries, stevedores, taxicab drivers, dolly men, clerks and riff-raff tried to explain just how all that vast mountain of cargo had got itself piled on the quay.

A few snatches of conversation from passing, dazed stevedores, gave me a clue to the mystery. It appeared that the stevedores were tired out, though they had not worked. It further appeared that every one of them had money in his pocket he could not explain, each one's unexplained *cruzeiros* amounting to about the average sum each made when he helped unload a river steamer!

"Gannet," I said, "can you charter a plane? If you can, can you fly with me to Santarém, to Manáos, to Porto Velho, and wherever else up-river we may think it advisable to go?"

"I can, yes," said Gannet. "What do you think you're going to do?"

"I've been your company investigator for four months," I said. "I want to earn my pay. Maybe I won't be able to, but I can try."

"If Killion or somebody in Procras Incorporated doesn't kill you first," said Gannet.

I'd thought of that.

"Just who and what is Procras Incorporated, Gannet?" I asked.

"I never heard of them," he retorted, "until I stepped onto the quay this morning to welcome the *Rio Tapajós* and noticed that my cargo, with their signs on it, had somehow made port ahead of the steamer!"

CHAPTER II

Murder Is a Mosquito Bite

GANNET got a plane and flew it up-river himself. He had been a chief pilot for Pan American Airways, and he was still good. He knew the Amazon Valley like a book, far better than Queiroz did from the deck of the *Rio Tapajós*. It took us four hours to reach Santarém, which I had left six days before aboard the *Tappy*. We didn't have anything to say to each other.

There was something strange about the river, too. I didn't see a single steamer on it, and the Amazon was usually plenty busy. I noted, at Gurapá, Arumendúba, Monte Alegre and other cargo ports, that there wasn't a spot of cargo, or rubber or *caucho*, at any one of their wharves. The river had been picked clean. For the first time in the memory of man.

As we circled for a landing on the mouth of the Tapajós, at Santarém—we had a sea-plane—Gannet yelled into my ear.

"Take a look at the waterfront!"

Santarém now was walled in on the Amazon side by a mountain or rubber and *caucho*! The cargoes of scores of steamers had been dumped there. As we circled, Gannet slanted a wing down to give me a good look and I saw the usual signs:

PROPERTY OF PROCRAS, INC.

That sign, worded exactly the same wherever seen, seemed to be saying some-

thing to me beyond the words themselves. It stirred a memory, a vague dream-like something, but I couldn't pin it down.

We landed the seaplane, taxied in close, moored her, went ashore in a *canoa* for a look at that great hill of rubber and *caucho*. Gannet began to swear when he noted the rubber marked with the names of *patroões* and *aviados* on the Upper Tapajós, was from his own domain! Not only had he lost his recent cargo at Belém, but here was cargo that would have gone out to Belém with the *next* trip of the *Rio Tapajós*! Why had it been unloaded here?

"Somebody has snatched our cargo at Belém," said Gannet.

"Snatched?" I repeated stupidly. "Snatched? But *how*?"

"You must find that out for me, remember?" said Gannet.

I remembered, all right.

Three men who might have been blood relatives of Killion came out from along the mounds of rubber and *caucho* to meet us. They were in no mood for nonsense. Pistols swung in holsters at their belts, and there were no smiles on their faces. Gannet and I didn't wait to tangle with them.

We promptly got back aboard the seaplane and took off for Manáos.

"Rome," yelled Gannet as we roared away. "That rubber, by all the rules of the game, shouldn't even be harvested for several months yet! I *know*. I've made a quick estimate of the rubber and *caucho* we've seen, and there is entirely too much of it."

"It's been brought out and stockpiled," I mumbled, "before it's even been tapped in the jungles? Next thing I know you'll be telling me these otter, jaguar, wild pig, deer, alligator and snake skins are off critters that are not only still alive and kicking in the jungles and streams, but won't be killed for weeks yet to come!"

To my amazement Gannet didn't answer. He just looked at me, moistening his lips.

"Do you believe some such thing is possible?" I demanded.

"Isn't it?" he managed. "Tell me, smart fellow, *isn't* it?"

I started to sneer at him, but remembered how many things we had seen, and clammed up.

Suddenly an idea came to me. Some strange force, not yet known to the world generally, had worked on the boats plying the Amazon, causing many of them to arrive

and discharge cargo ahead of themselves and ahead of time. Yet they, at least in the case of the *Rio Tapajós*, had reached their destinations on schedule.

"Somewhere there are eyes, remarkable scientific eyes," I said to Gannet, "which see whatever they wish to see, anywhere on the Amazon, or all the world, for that matter."

I COULD see the fear glimmering in his eyes.

"They also see us," said Gannet promptly, as if he had already reached the same absurd conclusion, "and can do whatever they wish to us, whenever we begin to find out things supposed to be secret."

"Secret with Procras Incorporated," I added.

"Yeah," said Gannet. "Maybe there are ears, too, to hear what we say."

"Like Killion's, when he overheard me mention the vanished ninety thousand dollars," I said.

The second day we made Porto Velho on the Madéira, to find its waterfront also piled high with rubber and *caucho* and skins. We didn't ask questions. We didn't need to. The town was seething with it. Every riverman, every railroad man, every trapper, fisherman, hunter, *seringueiro* and *caucheiro* was discussing "Procras Incorporated," and knew that Procras Incorporated owned, legally, all the rubber and *caucho* on the wharves.

There was a telegraph station at Porto Velho, so we got some stunning news: Procras Incorporated was Brazil-wide and in some way had acquired ownership of billions of dollars' worth of natural wealth. They'd "purchased" Tocantins diamonds, gold, and pearls. They'd optioned the output of the deepest gold mine in the world, down south, and nobody had yet found a hole in any papers they held which made their ownership illegal. The papers proved it, and officers whose signatures appeared thereon confirmed their signatures—but not one officer would admit remembering having actually signed those papers!

After we had seen all we needed to, and a lot more, we headed back for Belém. From Santarém, the third day, we took off about noon for the four hour flight down the Amazon, then along the Straits of Breves, to Belém.

As we soared into the sky, I happened to look down just as one of the three men we

had seen a few days before came into view between the stockpile and the river, and lifted something to his shoulder. It looked like a rifle. I dodged automatically and yelled at Gannet.

Gannet couldn't duck. He was at the controls of the seaplane.

Gannet vanished from beside me as completely as if a vacuum had swallowed him!

The plane slid off on one wing. I'm no pilot, but I knew something of the theory of flight—Or thought I did—and I didn't want to die, not just then. I knew that the man down on the wharf had done something to Gannet. I don't know what I did to the controls, but we went into a dive I couldn't pull her out of, and I closed my eyes to await the crash, and the end.

I regained consciousness in the SESP hospital in Santarém, to discover that I had come through the crash without a broken bone and with but minor cuts and bruises. *Caboclo* canoeists had paddled to the seaplane before her tail went under the muddy waters of the Amazon, and had got me out.

Brazilian police sat beside my bed, waiting for me to talk.

"Mr. Gannet," said one of them gently. "What happened to *Senhor* Gannet?"

"I think he went wherever all the money went which supposedly paid for the cargoes that shifted around the river recently," I said.

No sooner had I spoken than it wasn't the law sitting there with me—all at once it was Lester Killion, Belém's representative of Procras Incorporated! He was grinning at me, a grin I didn't like one little bit. He said:

"You're already living on borrowed time, you know, Rome!"

"I know," I retorted. "But you won't kill me."

"No? Why not?"

"Killing, to you, is no more important than a mosquito bite. You have a reason for keeping me alive, or I'd be dead before now. So what's a little borrowed time, more or less?"

"I'm afraid," said the police official, who was suddenly once more sitting beside me, notebook in hand, "that this man is delirious. Call a doctor, nurse!"

NO, I DIDN'T mistake the law for Killion! Strange tentacles of something had reached into the lives of every-

body in the Amazon Valley, in all Brazil. Those tentacles reached in at will. They reached in whenever necessity seemed to dictate. But to whom did it dictate? Part of the answer came plainly, and gave me the shivers.

That force, entity, whatever it was, was somehow tuned in on me and no telling on how many others. It knew every move I made, every word I spoke, and every thought in my bewildered brain.

What should I do next? How could I be sure that whatever move I made would not be exactly the move Procras Incorporated wished me to make?

And where was Peter Gannet, living or dead?

I had seen him "erased," but I believed, in spite of what had seemed his instantaneous disintegration, he was still alive—and that I would eventually find him.

I started to get out of bed. Two nurses and a doctor appeared from nowhere and convinced me I'd better spend a day in bed—shock, they said. The clock said it was three o'clock in the afternoon. I lay back, but when I did I'd already made up my mind that morning would find me far from Santarém—or dead.

CHAPTER III

Caboclo Clues

LATER, THAT NIGHT, I slipped out the back way from the hospital, my mind fairly well made up as to what my next steps would be. I didn't go north into the town, but slipped through the garden and headed down river. People lived on the river, both sides. *Caboclos*, whose shacks stood in most of the tiny clearings, saw everything that went on. They had seen what had happened on the river the last few days. They hadn't understood it, but they had seen things, heard things, which might give me a lead I could use.

I got down to the riverbank, found a path which led through the jungles, roughly paralleling the Amazon. The muddy river, broad and sullen in the night, moved without sound save for the lowest of whispers. Now and again as I walked I could hear a fish jump, fall back.

I heard a 'gator sound, and a chill ran along my spine. The winding trail I followed was so black I couldn't see a thing. I felt my way with my feet. I held my arms in front of me to make sure I didn't bash my brains out against a tree trunk. Trees weren't cut down on such trails, the trails went around them. I wore mosquito boots which weren't high-topped, so I thought briefly of snakes, of which there are so many in Brazil. If one hit me, I'd die, that's all. It was a matter of luck.

Strange night birds railed at me, called me names. Far away to my right through the forest sounded the night chorus of the *ururú* monkeys. It was a scary feeling, just to travel such a trail. I wished I had a pistol, or had picked up a club. A baseball bat would feel good in the hands. A jaguar, I knew, full grown, was a nine-foot cat . . .

I saw a light ahead, smelled cooking rubber. I could hear soft speech and began to whistle, so the *caboclos* in that cabin wouldn't put a bullet into me. The speech stopped. A tiny light flickered out.

I hailed the house. There was no answer. I heard a baby begin to cry softly, in fear. I spoke again.

"I am an American," I said. "There is nothing to fear. I wish to talk with the man of the house."

So suddenly that it made me swallow my tongue, so silently I had not heard him, a man as tall as myself—I'm a six-footer—stood beside me. He could have cut off my head, if he had wished to, and I'd never have had warning.

"I am the man of the house," he said. "An American who walks these trails without a weapon is very foolish!"

He stood, waiting for me to say something.

"What's your name?" I asked.

"You came here unasked," he replied. "Tell me your name."

I told him. He lighted a homemade cigarette, peered at me over the flames, and proved he had a good memory.

"I did not know your name, but you were on the *Rio Tapajós* when she went down ten days ago. What brings you back here."

"What is your name?"

"Joao Pimental," he said. "Come to the cabin."

That meant acceptance, as if I were one of the family, but he had given himself time to study me, make up his mind. *Caboclos*

didn't want wrong 'uns around their women-folk. I went into the palmfrond cabin with him. He turned up the wick of his lantern. A woman came out of the shadows from a second room. He told her to bring coffee. She looked frightened. One by one five children, all girls, poked their heads in out of the shadows for a look at the stranger. I asked about them all, politely, to prove that I knew Brazilian manners.

THE coffee came and we drank it hot and sweet. Joao Pimental looked at me inquiringly.

"There have been strange things happening on the river, Joao," I said. "I want to find out about them. Maybe you have seen something?"

A kind of sob came from the room which had swallowed the woman and children. The woman was plenty scared. It made me certain I was on the right track. Joao hesitated. While he hesitated the woman came in, her brown face streaked with tears, dropped to her knees before him.

"It is trouble!" she moaned, "Great trouble! It has never been lucky for a *caboclo* to say anything he has seen or heard, to the white-skinned foreigner!"

Joao still hesitated. The woman whirled on me, her face hatred-filled.

"It is *macumba*!" she said. "It is *pagê*. It is the work of the Evil One. We must not discuss it."

"What is this thing that we must not discuss?" I asked her.

"Joao, my husband," she retorted, "and how he was standing right outside in the clearing, ten mornings ago, bidding me good-by before he started along the trail to Santarém—and suddenly he was standing, without taking a step, clear down at the bend of the trail toward Santarém, a distance that takes a good two minutes of walking. Next instant he was gone entirely, and I didn't even see him take a step!"

I was getting something, all right, but up to then I didn't have the slightest idea of what it was. The woman turned back to her man, her head bowed on her knees, her body shaking with sobs. I had never seen a person so frightened.

She turned to me again.

"As suddenly as he vanished," she went on, "he was back in our little yard, still telling me good-by, and—and—"

"And?" I prompted.

"He was covered with labor sweat," said the woman. "He was staring at some money in his hand. It was sixteen *cruseiros*, the usual wages for a day of unloading ship!"

This tied up with the conversations I had heard among the Belém stevedores, anyway. Joao pushed his wife away, bade her go to bed.

"This man is here to help, not to frighten, woman," he told her and turned back to me. "Since that strange morning I have not gone in to Santarém for any kind of work. I have been afraid to. Here is why. Maria told you what she saw me do. I remember none of it. I was standing there, fresh and eager for the day's work. Then I was standing there all tired to death, sweating as if I had already done a day's work, and holding the wages of a day's work in my hands! But the sun hadn't moved more than an inch or two in the east!"

I gave this some thought. This man, after his weird experience, had spent the next ten days all but cowering here in his clearing. I began to realize that I was pretty lucky he hadn't, in his nervous state, killed me without asking one question.

"You must have seen things, then, Joao, during the last ten days and nights on the river?"

"And *heard* things!" He nodded. "Things such as I never heard before on the river!"

"Tell me what you saw," I prompted him.

"Let's go down to the riverbank, so I can show you," he said quietly. "There have been nights when I've been afraid, days too, even, but tonight I'm not afraid."

He took me out, down to the bank of the muddy, sullen, slow-moving river. I couldn't see its far bank, of course. It was hard to be sure it was there, Kilometers distant through the night.

"The steamer *Parentin* was the first," he said. "There have been others since then. Can you see the big bend down there, far to the east, where it curves away to the right?"

"No, Joao, but I know it is there. Go on, please."

"I saw the *Parentin* come around that bend. It was night, and all her lights glared on the river. I stood here smoking, watching her. I watched her until she passed my cabin and reached that other bend, up-river, which would bring her in sight of Santarém as soon as she rounded it."

"You can read, Joao? You are sure of her name?"

"I cannot read," he said with quiet dignity, "but I know her name. I know the boats that pass here often."

CALMLY then he delivered his bomb-shell.

"I was turning to return to the cabin and go to bed, when I happened to look again at that down-river bend. A steamer was just coming around it. The steamer was the *Parentin*!"

"But you just said," I sputtered, "you just said that the *Parentin* had gone around this up-river bend, toward Santarém."

"It had," he said quietly. "It was out of sight. That's why I was turning away."

"But the bends are many kilometers apart—" I began.

"About three," he said, "Twenty minutes apart on the *Parentin*."

"The first steamer was the *Parentin*?" I insisted.

"Yes."

"The second steamer was also the *Parentin*?"

"Yes."

"But this thing can't have been! One ship does not become two ships, or two ships one. This thing, Joao, is against nature."

"I saw it, then, I am not mistaken," said Joao. "Perhaps one ship cannot become two, but two can become one, for I saw it! And heard it, too!"

I had to wait this one out, to know just what he was driving at.

"The second *Parentin*," said Joao Pimental, "came steadily upstream. I could hear her old motors, as I had already heard her old motors, on her first self. Then I heard something. I think I saw something, too, but of that I have never been sure. A streak of bright light, brighter than any I have ever seen, came around the bend from the direction of Santarém. It could have been anything, but my eyes are keen. It was the first *Parentin*, but before I could even speak its name, the light, and the sound it made, became one with the second *Parentin*, which chugged on up-river, rounded the bend, and vanished!"

"Were there any unusual sounds from the first *Parentin*?"

"A sighing, far whistling sound, like a star falling, came from it when it had rounded the bend. The same sound I heard when it came back, or whatever it was that came back."

"And the second *Parentin*? Did it make any sound?"

"It rode higher in the water than it should have! There was confusion aboard. Women and children were crying. Officers were shouting orders, and there was such fear in their voices that, man though I am, I hurried into our cabin, barred the door, and buried my face in the bed clothes. It is not good for a *caboclo* to see such strange sights, hear such strange things."

"Tell me, Joao," I said, "have any of your friends heard or seen anything like this thing you have just told me?"

I could see his brown face become paler in the night, so close did he stand to me, as if afraid to get out of reach.

"I have friends for miles along the river," he told me. "They all saw the same thing—but of course at different places on the river!"

"Oh, but of course!" I said, trying to keep the sarcasm out of my voice. He missed it entirely.

"This sound, you said, was as that of a star falling?"

"Yes. My friends heard it the same way, too, like the sound of a star falling. One of my friends, who is famous for having the keenest eyes on the river saw a strange thing, too—"

Joao Pimental stopped there, as if he simply could not expect me to believe what he had next to say.

"Yes, Joao?" I prompted him.

"This friend of mine is Manoel Portela. He told me that when the first *Parentin* came back from Santarém like a streak of light, making the star-falling sound, it looked like a streak of light—but it also looked like countless numbers of *Parentins*, running backward into each other so fast that Manoel could see each of them even after it had passed!"

Was that a *caboclo's* description of something new in vibrations? I had not, then, any way of knowing. But something kept banging at the doors of my mind, recalling something to me. It was a voice out of my recent past, demanding to be heard. I held up my hand, listening intently. Joao Pimental might think me crazy, but it couldn't be helped. It might scare him, but that couldn't be helped, either.

"This *caboclo* of mine heard a sound like a star falling, far behind Jacaré Acanga," the voice was saying. "It was at night, when

he should have been afraid of jaguars, but he followed the sound. He followed it for three hours, right into the thick of the *mato*, what you call jungles. The sound kept on sounding, after the falling star struck. There was an explosion when it hit, an earth-shaking feeling on the ground, and the swishing sound kept right on, leading my *caboclo* right into the jungles. He came at last to the rim of a deep pit he had never seen before. At the bottom was the star, glowing like a huge diamond. It was hot there on the rim, and he went away. That was five years ago. He has tried many times, and I have gone with him, but he has never found the place again. He has heard the swishing, but that's all. That first night, too, he did not see the star fall, he only heard the sound of it."

THE voice was as insistent in my memory now as if the man who had first told me that wild story had been right there beside me. The man's name was Antonio and he was a Portuguese, a little man whom everybody called *Portuguesinho*, or "Little Portygee!"

He'd been a passenger on the *Rio Tapajós* with me months ago, when I had gone up-river. He had told me his story then. He had told me the same story twice thereafter, once when he had traveled up the Tapajós with me on the launch *Aida*, and once when he had visited me at Sao Luiz. On the launch we had passed the spot called Jacaré Acanga, which was owned by the Little Portygee himself.

What a talker he was! People called him "the walking radio" or "the walking victrola" and I hadn't paid too much attention to his chattering. Now as his voice came back to memory I recalled something else the Little Portygee had said:

"Jacaré Acanga is almost in the exact center of Brazil!"

It could mean little, it could mean nothing. But Joao Pimental and his friends had heard something—all of them—that sounded like a star falling, but there had been no star! It was the only thing to connect their stories with the wild story the Little Portygee had told me three times. There might have been one other thing, if it were true, that Jacaré Acanga was in the center of Brazil. It struck me that the force which had played such ghastly tricks on Brazil might be centrally located.

I became doubtful and afraid when I thought of the *mato* behind Jacaré Acanga. I wouldn't have gone into it for all the gold in the world. But I'd go for Gannet, who was a friend.

Little Portygee's thought about the "explosion," and the "falling star" had been that something very precious, a new metal perhaps, had landed on his jungle property from somewhere Outside.

I bade Joao Pimental good-by and started back to Santarém through the inky jungles. There were worse jungles behind Jacaré Acanga; I might as well get used to the idea of them.

CHAPTER IV

Terror Tentacles

JACARÉ ACANGA was approximately six hundred miles south of Santarém, on the Upper Tapajós River. Bear that in mind in connection with what came next for me: less than ten minutes later I stood on the eastern bank of the Upper Tapajós, looking at the darkened buildings of Jacaré Acanga.

The moon seemed scarcely to have moved in the sky since I had taken leave of Joao Pimental, six hundred miles down-stream!

I was a lot calmer than I had any right to expect. That the strange force had picked me up and whisked me through six hundred miles of distance seemed certain. I didn't know how it had been done, or remember the least detail of the trip. I hadn't been affected in the least, as far as I could tell. I looked down at my hands and they seemed to glow a little, but it could have been the moonlight.

I stood there on the river bank, knowing just what a sensation I would be causing if anybody had been watching that particular spot. They hadn't or I'd have had Jacaré Acanga by the ears by now. I looked behind me. There were no footprints save those under my shoe soles this instant!

So what had happened? I'd better brief myself a little before I made any more footprints. The power, force, energy, whatever it was, could pick up any boat its supervisor, handler, creator, desired, and do anything with it—take it ahead or backward in time.

It could do the same with people. It could, in less than time, send a steamer to dock ahead of itself, send laborers there ahead of themselves, unload the cargo, get the captain's receipt for the money, pay the *caboclo* laborers who had, in zero time, done a day's work and fatigued themselves to that extent—and then return the steamer to its proper place in time on the river, the *caboclos* to their proper places in the work of the earthly day.

But *how*?

The force could select groups or individuals and erase time with their bodies. How did it select such individuals? How had I been selected for this night journey, for instance? What had happened to Gannet?

I could think of a great cosmological eye, which could be turned on any human, or animal, or plant group anywhere, the eye attuned to the force, and everything within the eye's vision made subservient to the force. It had to be atomic, I was sure, because of its timeless speed of operation. The same eye could envision an individual and do things with him. Or with a smaller group, or a pair.

There was probably a cosmological ear, also, which listened in to conversations and turned them to the best advantage of the operators.

If I spoke right now, would Killion, or "Procras" hear me? I didn't know, but I tried. I spoke softly:

"Let's take the next step, whatever it is. I want to know all the answers!"

I spoke in a very low voice. Nobody ten feet away from me could have heard me, yet all at once my right hand was turned up, elbow crooked, and my compass rested on the palm. I hadn't myself put it there, I would have sworn! I looked down at it. I moved the case to bring the needle onto the North-South marks. But the needle didn't point so. It pointed east-by-north!

And when I looked in that direction, and remembered exactly what the Little Portygee had told me, I knew that I had just been given the compass bearing of the "falling star" to which the *caboclo* had never been able to return! As if my mind had been read, too, the needle suddenly swung back to point north-south, as if released from some subtle tension.

I began to make tracks. Dogs were barking in Jacaré Acanga, and soon people would be out, suspicious, fearful, and I'd be in a

jam. I reached the edge of the jungles, following the compass bearing which had just been given me. At exactly that spot a trail I did not see until I was about to enter it, pushed into the tunnel of the woods!

I stepped into the trail—and found myself back on the beach whence I had started! Footprints I had just made led away along the compass bearing to the place where I knew the trail to be. My heart hammered wildly, and now the dogs were out in force. A dozen of them, giving tongue as if I were a jaguar on the rampage, charged full tilt at me from the cabins. Lights began to go on in the cabins. Men's voices bade women and children shut their mouths. I began to run for the jungle edge.

SOMETHING happened to the dogs when they were almost on me. They were all right back where they had started their charge! And they knew, every last one of them, that something had happened which was not in the book of dogs! They didn't charge again. I'd never heard dogs *weep* before, but that's how it sounded. Those dogs were *scared*.

The lights had gone out, too, as they had been out when the dogs began their charge—and they stayed out! Your Amazonian *caboclo* is a religious fellow, but he is superstitious, too, and the keen ears of the *caboclos* here had followed the unbelievable behavior of the dogs. Also the behavior of their own lanterns must have been most puzzling. In a matter of seconds the town was utterly silent, as if held in the grip of voiceless fear.

The Boss, or Leader, of the Force had a grim sense of humor. He let me penetrate the trail this time for all of a kilometer. Then I was suddenly back whence I had started into the trail. Wearily, angrily, I walked back, picking up the distance I had lost. My own footprints would pack this trail if this kept up, and what would the *caboclos* think tomorrow when they hit the rubber *estradas*?

I'd no sooner asked the question than I was standing back on the beach! But the dogs didn't even whimper.

I moved back into the trail. This time I traveled for an hour, for two hours. I felt strange forces in the air around me, electrical, *other*, but I believed them mostly my imagination. It was unbelievable coincidence that I should hear talk of sounds, of "fall-

ing stars," and be the same person who had heard the Little Portygee discuss a happening five years old here at Jacaré Acanga. But how else was I to interpret the strange things that were happening to me?

I began to get warm, Jacaré Acanga being so close to the equator. I doffed my helmet and ran my hand through my wet hair. My hair stood on end under my fingers, and a crackling sound came out of it! That wasn't an unusual phenomenon, but in the place and circumstances I found it rather startling.

I held my hands out before me, spreading the fingers. There was a definite glow about my skin, like phosphorus and not like it, and a tingling sensation all through my body. How much radioactive stuff could a man take and live? Just what was I letting myself in for anything; if I hadn't started just what I was doing I would have been compelled to do it.

Had the thrice-told tale of Little Portygee, weeks before, been a planted story to make me remember Jacaré Acanga? Had "Procras" started working on me then as part of their plan to loot Brazil? What role was I playing, then? Had Little Portygee been in on it from the beginning? Was his property, Jacaré Acanga, site of the Force?

I don't know just when that old chestnut began to run through my mind, almost keeping time with the tingling, crackling sensation which was constantly growing within my body. I had been somewhat fatigued after being "set back" several times on the trail, but now I felt stronger than I ever had in my life before, able to perform prodigious physical tasks.

I didn't try it, but I felt as if I could push down a *castanha* tree, or like Samson, break in sunder the pillars of the temple. This gave me a hint, I felt sure, of what had been done to the *caboclo* stevedores, to make them unload ships in less than no time at all. I also wondered why, if the Force were able to work such wonders with men and cargoes, it ever used *men* at all. Couldn't it just as easily move cargoes without the use of human hands? If not, did this indicate some weakness I needed to know about?

"Procrastination is the thief of time."
PROCRAST!

Oh, yes, I'd got it, long ago, the inspiration for "Procras Incorporated." The quotation simply told me something I already knew—that Procras Incorporated was actually somehow a thief of time, and was boast-

ing about it by making me remember the quotation. I supposed there must be a reason for every bit of it, which I might or might not find out.

I must have been four hours on the trail, some of the trail not a trail at all, but simply an opening through the jungles, as if invisible hands had pushed aside branches, trees, leaves, lianas, brush—when I heard the "whishing" sound. I got it right away. I stopped stockstill to listen to it. It seemed to be directly ahead of me, on the compass bearing from which I had not swerved since I had left Jacaré Acanga. It was the sound sometimes heard when a meteorite flashes across the sky! I could see no trace of such a meteorite, but the jungles were thick, almost impenetrable—with a roof that shut out vision, even of the moon.

I heard an "explosion," like none other I had ever heard. The earth trembled underfoot, and I knew this was the series of happenings which had led Little Portygee's *caboclo* to "the rim of the pit in the bottom of which the fallen star glowed." The *caboclo* had never been able to find his way back to the spot, Little Portygee had told me. That might or might not be true.

ANOTHER thing was true. I was now in Caiapo territory, or mighty close to it, and those wild Indians did their killing with the *borduna*, or war club, from the rear. I wasn't afraid of it happening, though, for I'd have wagered anything that not even the wildest of the wild ones would have come into this area of strange crackling sounds, of "falling stars," of "explosions" and earth tremors. Probably the animals gave the area a wide berth, too. I hadn't heard a bird or an animal during my four hours on the compass bearing which somehow had been given me.

I walked on for another half hour, stopped again. The "swishing" sound was louder, nearer. The "star" was taking a long time to fall! My heart was in my throat, not because I was in any more danger here than I had been in Santarém, or Belém, but because I was positive I was closer to its source. As I stood, listening, I was conscious that a glow with which the moon had nothing to do, permeated everything—the leaves, the trees, the soil, me, the sky. Some force, *the* force, vibrated out in all directions from its source, and I was now close enough to see it—or else my own vibrations had been

speeded up so that I could see it. Maybe if my vibrations remained as they now were, and I were suddenly back in Santarém, I could see the eerie glow there, too, or in Belém.

"If I can see this light in Santarém, and Belém, as I now am, I'd like to!" I said.

In an instant I stood on the *trapiche* dock at Santarém, and saw the glow of strange light on the green waters of the Tapajós, on the muddy waters of the Amazon, so clearly defined that I could see, long after midnight though it now was, exactly where the green water met the muddy water!

In the instant I knew this, recognized the light as being the same I had just seen behind Jacaré Acanga—I stood on Avenida Nazareth, looking at the Church of Our Lady of Nazareth, in Belém! The light was there, too, and it was the same, playing over all the city of Belém, over all the streets and the sky above, causing the great church to glow as with the light of angels!

I knew—and the instant I knew—I stood again behind Jacaré Acanga, in the very spot where, aloud, I had expressed the wish to stand for a moment in Santarém, for a moment in Belém. I felt nothing during either transition, neither speed nor change, nor discomfort. Whatever this was, it didn't hurt!

I walked on, growing brighter myself, as if a light-balloon were being created about me, while the swishing sound increased, the explosions came often, and themselves had a kind of rhythm, and the gentle trembling of the earth underfoot was part of the rhythm.

I came, in the darkest hour before dawn, to the rim of the pit about which Little Portygee had told me, about which his *caboclo* had told him. I looked down at the "fallen star" at the pit's bottom, far far down, and it did indeed glow like a great jewel of some kind.

I think I must have been allowed to see the place as Little Portygee's *caboclo* had seen it, for no sooner had I done so, and recognized it from the description, than the pit was gone, and the "fallen star," and over the vast clearing which had been the site of the pit, stretched what looked to be a gently concave dome of gray plastic. It could have been quartz, of course, by its appearance, for this land was rich in quartz. It could . . .

"Won't you come in, Rome?" said the voice of Lester Killion. "You've come so far, so often, we'd be less than hospitable if we kept you waiting any longer!"

"I'd like to come in, but I don't see any door," I said. "And I don't see you, Killion, though your voice is very plain!"

The dome was gone. Rather, it was still there, only now it was at least two hundred feet above my head, and I was standing, blinking with the change, directly under its highest point, its center—in a big circular room that looked more like a vast cistern than anything else, a dry one, the walls of which were as gray as the top of the dome.

There were lights there. There were panels there. There were great and small machines there. There were people.

There were even cities, the cities of Brazil, close enough to touch!

"Neat, eh?" said Killion, smiling, standing beside me as nonchalantly as he had stood beside me at Belém, ages ago it now seemed.

"Neat, yeah," I said. "But excuse me if I take it sort of big at first, won't you? What's that town? I don't recognize it."

"Oh, that," he said, with a wave of a hand which held a well known American cigarette. "That's Guajará-Mirim, the other end of the Madeira-Mamoré railroad, on the Bolivian Border. It's experimental so far, but soon it won't be. In a month or so we'll be extending our operations into Bolivia. Quajará-Mirim is our jumping off place, when we are ready. Care to look around?"

I nodded, with an effort, for my legs were about to refuse duty, and my stomach was suddenly filled with fluttering butterflies. Killion's voice made me think of the contented purring of a cat, a big cat, a jaguar perhaps.

He led the way as naturally as if it had been necessary for us merely to walk, like ordinary human beings!

CHAPTER V

Electron Masters

HOW to describe just the television part of this set-up, I am not sure that I know. And it wasn't exactly television, for the pictures I could see, in no matter which direction I turned, were *Brazil*. They were not *pictures* of Brazil being piped into Jacaré Acanga, they *were* Brazil. This great circular chamber, two hundred feet below

ground, roofed with fused quartz, I learned later, at ground level, was actually, in the plans of Procras Incorporated, the hub of Brazil.

Out from that hub radiated Brazil herself. That doesn't explain it, either. It was like this. I looked northward in the direction of Santarém, at the mouth of the Tapajós.

Instantly I saw the land between where I stood and Santarém, with all the people in it, the cabins, the streams, the jungles. To look at six hundred miles of territory wasn't physically possible—except from this spot, and even then it was a blur unless the territory were "tuned in."

There were fused quartz staffs, looking oddly like microphones, all around the circular wall, and perhaps ten feet outward from them. In place of the "mike" on each one there were buttons to push—and Killion, without asking me, pushed them.

When I oriented myself, and looked toward Santarém, for instance, he pushed a button, or series of buttons, and I was looking in the direction of Santarém, my vision unbelievably amplified, so that everything came into the sharpest possible focus, from just outside this place, at Jacaré Acanga, to Santarém itself.

One couldn't see six hundred miles straight, because of the curve of the earth, but as soon as I started looking, I'll be hanged if Killion, punching another button, didn't roll the country up toward me, right before my eyes, bringing each detail of the six hundred miles, in a narrow swath, sharply before me.

I began to get the drift of this thing when I saw naked Caiapos stalking animals on the Crepory, many miles to the north. I saw rubber cutters on the Jamachim, killing time when they should be working. I saw the little town of Sao Luiz. Then I saw Fordlandia, and Belterra—and Santarém. They came to me, over and down, as if rolled on a great silent cylinder, and when Santarém came into view the roller stopped, and I could see Santarém in detail.

Then, as I stared at the sharply etched faces of the people on the streets—there were some, early in the morning though it was—Killion spoke for the first time.

"It's an adaptation of television, as you must have guessed," he said. "Do you see anybody there you'd like to concentrate on?"

I indicated a man I knew. Instantly he

seemed to be halted right in front of me, and everything and everybody else was erased as if by magic, and the man's voice filled the area where we stood.

It would have been most embarrassing to the man had he known, for he was discussing a woman he seemed to like very much, with some companion who had now been shut off from me, and it was plain that the woman was not his wife. He had a wife, though, who would have been interested in the conversation.

"Take it away," I said. "I don't like to eavesdrop on a man's inner life."

Santarém began to roll away from me. Now and again the roller slowed down, to show me the Lower Tapajós, then the rapids of Maranhao, then of the Metúca, then Montanha, as the roller rolled away, giving me the sensation as of traveling backward to Jacaré Acanga. I knew without looking that I could look at any section of Brazil in the same way, cutting a televisionary swath wide or narrow as I wished, or as Killion agreed to. I could hear and see. . . .

"How did you get all this material in here, anyway?" I asked Killion.

But I knew the answer before he gave it. He had started, he and whoever worked with him, with the secret of atom-smashing, boiled down so he could handle it. He'd picked out his location on the map, the heart of Brazil, where no man lived, where he, or they, could work without fear of interruption. Then he had simply dropped to the spot from a parachute, and begun to bore from within. I tried to put it into words, and he nodded.

"But this time business," I said. "Moving forward or backward in time, how do you do that, and for what purpose? Of course, it's an old pseudo-scientific idea—"

"Those old ideas, as you call them," Killion interrupted sharply, "have been responsible for many *new* inventions, including the atomic bomb which now has the world by the ears. With this set-up, incidentally, we can disintegrate any atom-bomb, anywhere in the world, before it can do any damage to anything or anybody."

HOW calmly he told me he held in his hands the peace of the world! I hoped he was right—if his intentions were right! I began to see why I had been allowed to see so much. I was to go back to the world as the messenger of Procras. Of course, I could

go back as a messenger of peace, or to warn the world of catastrophe, and as yet I hadn't the slightest idea which it was to be.

Killion now answered the business of time-travel for me.

"Electrons have never been seen," he said, "but their track has. It is of electrons that everything in the universe is made. They even fill all interplanetary space, though scientists outside Jacaré Acanga are not yet ready to accept such a statement. Electrons in some relation to one another, form birds, bees, flowers, people, pebbles, drops of water, clouds, grass, everything there is, anywhere. Control electrons and you control all those things—including people. Procras Incorporated controls electrons. We are masters of the electron.

"Electrons take shape at the command of Mind, of Force—depending on whether you discuss them from the spiritual man's viewpoint or that of the scientist. Since they take shape they can also be hurled outward from one another to alter or destroy shape.

"Or, as we have discovered, you can hurl all the electrons in a man, a boat, or a ball of rubber, in a given direction, at a given target, and all those electrons will go there—with the speed of electrons—and stop there, in the same form. Thus, by seeming to compress time, which we don't actually do, as *some* time must pass—we dock a boat ahead of itself, take its cargo, pay its skipper."

"But do you actually pay him?" I asked. "What about Gannet's ninety thousand? Poor Queiroz! He's almost insane with fear that Gannet thinks him a thief."

"If we can take cargoes, we can procure money," said Killion. "Let us say that we hold Gannet's ninety thousand dollars, and the some billions of dollars of other people, in trust until we have made our world position clear, and heard what the peoples of the world have decided to do about us."

Somehow this sounded ominous beyond words. I had to have time to think it out.

"Can you show me the trick of getting a boat into dock ahead of itself, in slow motion?"

Killion smiled at me. He faced me toward Belém, where a steamer was just turning into the Bay of Guajará from Acará River. He focussed the television equipment on the steamer. I could see her name, the *Gurapá*, and hear the people on her, even more plainly than if I had been a passenger.

"I'll show you fast, first," said Killion.

I heard that "falling star" sound, and suddenly, in less time than it takes to blink, the *Gurapá* was alongside the dock in Belém. Then it was back at the mouth of the Acará, turning into the Bay of Guajará. I'd seen nothing between the two views of the *Gurapá*, views which flashed so quickly I could understand how a simple *caboclo* would swear that he had seen two *Gurapás*, or two *Parentins*, as Joao Pimental had sworn to me.

"Now, here it is in slow motion, which is still considerably faster than electrons are usually allowed to travel without supervision!" Killion said.

It was the darnedest thing I ever saw, without exception. First, there was the *Gurapá*, rounding into the Bay of Guajará. Then the *Gurapá* was making that strange swishing sound, had turned into a glowing river streamer—and was elongating itself with amazing rapidity, like a stretching snake or worm. For a period less than time, the *Gurapá* actually extended from the mouth of the Acará to the docks of Belém—a distance of many kilometers! I realized that what I was seeing, slowed down so that I could, were the paths of all the electrons which composed the *Gurapá* and everything aboard her, cargo, people, woodsmoke, food—moving between the mouth of the Acará River and the docks of Belém.

It stretched back, next instant, in exactly the same way.

I listened to the passengers, the skipper and the crew of the *Gurapá* and heard not so much as a hint that anybody aboard the steamer had noticed a thing unusual!

"I could have handled the Belém stevedores at the same time," said Killion, "and taken the cargo of the *Gurapá*. It wouldn't have required a split second of time longer!"

"I can see that," I said, hoping that my voice did not shake. "Why didn't you?"

"We no longer need to demonstrate," said Killion. "All Brazil knows that Procras Incorporated can take anything it wants, at any time it wants it!"

FOR a solid hour Killion took me through Procras Incorporated. He could have sent or taken me as he had brought me from Santarém to Jacaré Acanga, but he chose not to do it like that, and I knew why. He wanted me to be sure that I could make it understandable to people outside.

The cylinder reached into the earth for a

depth of ten stories, each story two hundred feet deep, or high. In this great air-conditioned cylinder, at the various levels, were the peak achievements of the world's scientists.

Here, if he wished, Killion and his associates could make atomic bombs capable of setting off the nitrogen train, though they'd never destroy themselves to accomplish that—I *hoped*! Here the universe was measured and segmented as Brazil was, though this work had just started. Here were telescopes capable of seeing further into the yawning depths of space than any others save the most powerful otherwheres. Then all at once I got it!

"At will," I said, "you can borrow the entire Lick Observatory, including telescopes, when you wish to study the stars, the nebula!"

"We can borrow the astronomers, too!" said Killion, grinning. "With mastery of the electron we can bring to this place, from anywhere in the world, and eventually from anywhere in the Universe, anything composed of electrons, make whatever use of it we wish, and return it to its place, all so quickly it will never be missed—that is, if we *wish* to return it!"

"You can watch geniuses at work—"

"And bring them here, unknown to themselves, to watch them," said Killion.

"And make whatever use of their work you wish?"

"Exactly."

"It's an old story," I said, looking into the blue eyes of the priestly-looking Lester Killion. "It appears that, if you wish, you can become master of the world! You can wage war, or compel peace. You are the most powerful man in all the world."

"As long as I am master of this laboratory at Jacaré Acanga," said Killion. "But I have no ambition to rule the world, or make war against any peoples, unless—by, the way, you noticed that weapon, like a pistol with a rifle stock, with which one of my men 'erased' your Mr. Gannet?"

I had forgotten about that. I could see he wished me to forget nothing whatever, to be able to report every slightest thing I saw and heard here.

"That gadget," said Killion, "is this laboratory in miniature! Does that sound odd? With electrons we can make things infinitely large or infinitely small. In our early tasks here we need men scattered about

Brazil. I have equipped them with those 'guns' which are not guns at all, but, in every slightest detail, replicas of this laboratory! The one big difference in operation is that they are administered from outside themselves, the laboratory here from its interior!"

"Have I now seen all of your laboratory, Killion?" I asked.

"Yes."

"But you can't have done all this alone! I met none of your associates, and you must have used an army of them."

"I did. I do. I have already explained it to you. You know, scientists need much time to themselves, yet curious people always visit them, steal their time. That's what gave me the 'thief of time' inspiration in the first place. People visit me, to, but only on 'invitation,' as it were. I bring them to me, or I go to them—just as I went to the dock at Belém, to talk with you and Gannet and Queiroz.

"When I need help here on some invention or improvement, I look around and pick the best man in the world for the job. Then I bring him here, at electronic speed, put him to work on it. He does it, returns to wherever he was when I got him, never even conscious that he has contributed his genius to Procras Incorporated. I could bring armies together in battle, or keep them from meeting, in exactly the same way—all because the secret of the atom is no longer a secret!"

I too now had a tremendous, ghastly secret, the secret of Lester Killion, a secret which should never be trusted to any one man. Here beside me was a man who, in effect, this very minute, was master of the world. If he used his limitless power for good, I would be all for him. But he hadn't started right; there was that ninety thousand dollars, and billions more, which had never been paid to owners of the vast stockpiles of rubber, *caucho* and hides.

"Why didn't you pay for what you took?" I asked, trying to hide in my voice, and keeping my face turned away so he couldn't read my eyes, the desperate resolution welling within me.

"Why should I have done so?" he replied. "Its possession means nothing to me beyond a demonstration of power. Have you ever realized that if a man owned the entire world he would be no better off than if he owned nothing at all? He'd have nothing to which to aspire. When I have made clear to Brazil and after Brazil to the world,

what I believe should be done for the good of the world, *compelling* obedience if need be, I'll simply instruct erstwhile owners of all those stockpiles to take possession of their own! Actually, what good is it to me?"

IT SOUNDED all right but for one thing—his use of the word "*compelling*!" It had a far too familiar sound. Hitler had sought to compel. Mussolini had sought to compel. His thoughts, in connection with his limitless power, were not running in exactly the right direction, the right channels.

I had one more question to ask.

"Where is Gannet? Is he dead?"

"I have not taken a single human life," said Killion, "yet—though the time may come when I shall be compelled to do so."

There was that word again: *compelled*. Yes, untold power was too much for any one man to handle. Yet when I carried out the mission I had by now set myself, how would I ever know what the man would eventually have done with his power to steal, remake and compress time—or how or to whom he would have passed it on when it came time for him to die? I must kill him. The world was in a muddle, but people in the past had always somehow got through their muddles. They must be allowed to do so again, and again.

But I go too fast with the story.

I didn't give him a second of warning. I whirled on Killion, dived at him, my hands reaching for his throat. Let me but strangle him and get out of Jacaré Acanga, and one day soon a bomb dropped on his laboratory would put the fate of the world right back into the hands of the people who populated it.

As I flung myself at Killion his face broke into a grin. I could see why, of course. His thoughts had been miles ahead of me. Naturally they would have been, the thoughts of a genius like Lester Killion. He lifted one of those small "guns" I hadn't noticed on him—and I was back at the beginning of my lunge at his throat, held there like something in suspension, with all my faculties on the alert, while Killion spoke softly.

"It is true," he said, "that no one man should control all this power. When my time

comes to die, I shall myself destroy this atomic set-up at Jacaré Acanga—if you have not made it clear to the world that it has been created for peace. If you have convinced the world, everything here will be turned over to a commission for peace, appointed by the Great Powers. Then I shall have accomplished, with your help, what no man or group of men has accomplished in the history of the world—world peace that dare not be broken. *Go! Tell them!*"

And in that instant I was back on the wharf at Belém, with Gannet beside me, and I was saying:

"Gannet, can you charter a plane? If you can, can you fly with me to Santarém, to Manáos, to Porto Velho and wherever else upriver we may think it advisable to go?" and he was replying, "I can, yes. What do you think you're going to do?"

Killion had sent me back to almost the beginning of our adventure, but with complete knowledge of all that had happened between the heartbeats of time. Gannet got it, too. We sat down and he tried to fill in gaps for me—and could not. Somewhere he had stood still in time, perhaps. We would never know, save in theory.

I told Gannet where I had been and what I had done.

"Shall we trust the man?" said Gannet softly. "I can get a plane, many planes, loaded with bombs enough, one of them should get through even his tricks of time."

"I'm inclined to trust him," I said somewhat ruefully because there really didn't seem to be anything else we could possibly do.

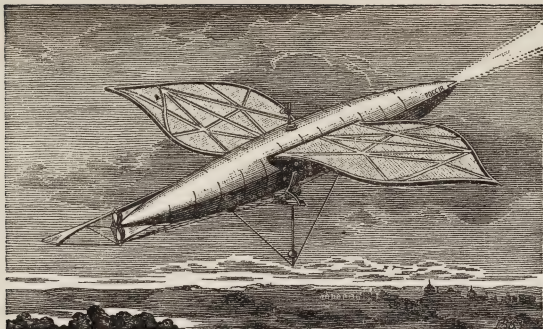
Just then a small truck equipped with a radio loudspeaker, came to the docks, turned about, and an excited voice sounded over the whole high-piled area.

"Procras releases all property to authentic claimants! Full explanation of strange happenings to be given to the world by reporter with exclusive story!"

This is the story. Gannet and I exchanged glances, then grins, then went aboard the *Rio Tapajós* to try and explain to the prostrated *commandante*, Queiroz, just what had happened to that ninety thousand dollars he had never seen.

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NEXT ISSUE

CONSULATE, a Novelet of the Future by WILLIAM TENN



Professor Baranowski's new steam flying machine

MAN'S JOURNEY TO THE STARS

UPWARD, ever upward, moves Man in his flight to the stars! While this paraphrase upon a famed quotation may seem a trifle melodramatic at first glance, in view of recent amazing scientific discoveries it is actually a modest statement of human progress at the present time.

Day by day our inventors and laboratory technicians are bringing the oldest and most intense of terrestrial dreams closer to fruition. Scarcely a single rotation of the earth passes without someone taking a further step along the mightiest of all highways—that which leads from Earth to the heavenly bodies which surround it and which make its nights sublime, when unclouded.

The Globe Left Behind

The world over, in the truest of international fraternities, scientists are leaving this globe further and further behind them.

The airships with which we have grown familiar are already obsolete. New concepts, new designs, new principles of motive power are steadily increasing human liberation from the force of gravity.

One of the most striking of the projected new aircraft has recently been reported to us from Professor Baranowski of Russia, via the *Revue Militaire*, of Paris. His ship, the *Pocir* (which means, translated, "Move over, Moonmen, we're acomin' to gitcha"), is based upon a lifelong study of the Arctic Albatross and the amazing Goony Bird of the mid-Pacific islands.

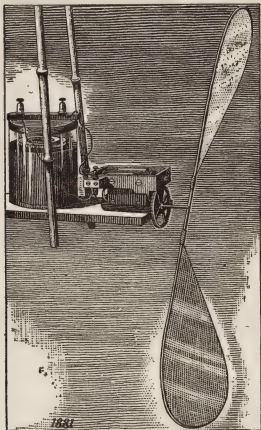
Powered by Steam

The hull, or fuselage, of Professor Baranowski's craft, is tapered to lessen air-resistance, looking somewhat like a greatly enlarged Havana Perfecto, or at any rate a cigar with a Havana filling. Powered by

By DR. AMADEUS RAFFERTY

steam, it has two lateral propellers and one rear propeller—and their rotation determines the direction of the ship, whether it shall be vertical or horizontal. According to reliable reports received here it is more comfortable for crew and passengers in the latter position.

At one extremity of our flying Perfecto is seen a species of oar, which serves as a rudder. Two great wings, composed of strong membranes (a Russian equivalent of beaver-board called *ursoskavitch* is currently being



Propeller of electric flying machine

tested as a wing material, although in some quarters doubt has been expressed as to the behavior of such a substance in rainy weather), give an ascending motion to the apparatus and keep it afloat in the air (it is hoped).

The part of Professor Baranowski's ship which, were it a cigar, would be inserted in a cigar cutter is so arranged as to permit the entrance of air to the interior, to supply the crew and for the combustion of fuel.

The smoke, gases and steam issue from the other end, which, when the structure passes

through space, will give it the appearance of a brilliant comet. Astronomers the world over are heartily warned not to mistake any predicted comets for flying cigars with wings.

From the underside of the ship hangs a pendulum weight which keeps the entire apparatus in equilibrium and can also be used, when aimed accurately, to clear dogs, moujiks and other domestic animals from the landing strip. When fitted with an asbestos disc with upturned edges it can also serve as an ashtray.

"It is not my intention to foul up the lawns or terraces of any of my friends and colleagues," Professor Baranowski said recently in the presence of a group of international correspondents. "Needless to say, should a lady be aboard, we shall not smoke. By a most ingenious device, the entire ashtray apparatus can be folded in upon itself so that no stale tobacco fumes will permeate the air."

Commendable Manners

The Russian scientist is to be commended for his manners. We hereby commend him.

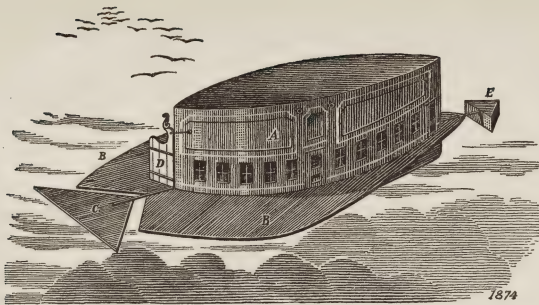
However, by the time the *Poccir* is fully tested, her means of locomotion, thanks to recent spectacular electronic advances, may already be obsolete. The eminent French scientist, M. Gaston Tissandier has designed an electric motor which, for compactness, power and safety, threatens to put all other forms of aerial motivation permanently on the shelf, next to the cookie jar.

As our illustration reveals, M. Tissandier's motor is amazing in its simplicity—in fact, it approaches the downright stupid. Worked by a small electric engine and weighing a mere 220 grammes, it works a light propeller 40 inches in diameter which can be suspended below an airship.

A Meter a Second

According to experiments already conducted in the *Conservatoire des Arts et Metiers* of Paris (France, not Texas), the armature turns 6.5 times a second, giving the aircraft a speed of 1 meter a second. With two secondary elements a propeller 60 inches in diameter can be used, which will propel our craft at the rate of 2 meters a second for a full 10 minutes. The experiments are currently held in abeyance while the effect of such velocities upon Man is determined.

Let us for a brief moment look into the future and give M. Tissandier's motor an impelling speed of 5 meters per second. This



A naval airship

rate, continued, suggests a speed of 300 meters a minute or approximately 18 kilometers an hour. At such high velocity an intrepid aeronaut could reach Mars, approximately 35,000,000 miles from earth at its closest, in a mere 380 years. He might find the return trip laden with ennui and a trifle chilly, but surely, as our fathers used to say (or did they?) the game is worth the candle.

At any rate it's a step in the right direction.

Another Brilliant Invention

Still another brilliant invention threatens to eliminate all artificial motive power from the picture in Man's journey to the stars—or maybe just to the Moon, we aren't quite sure yet. While we are not given to flag waving (it makes the radial muscles of our forearms terribly tired) we can point with pride to the fact that this most spacious and comfortable of aircraft is brought forward by a citizen of God's Own Country, one D. L. Rhone of Wilkesbarre, Pennsylvania.

As indicated in the accompanying sketch, Mr. Rhone's marvelous apparatus is really a sort of flying houseboat. Employing an internal gasbag, A, to attain and maintain altitude, horizontal flight is ensured by the stationary resistors or wings, BB. It is planned later to fit them with ornamental balustrades so that unwary passengers will not step over the edges while in the air and possibly bring suit for damages against the operator. No true aeronaut likes to be earth-

bound by such legal trivia.

D is an ordinary rudder attached to the stern of the boat to enable it to avoid sister craft in flight. C is a horizontal rudder, connected by a rod with E, which is a weight, not the fore-part of a hatpin as one of our feminine co-workers mistakenly believed. These, pushed forward or aft, will elevate or depress the bow of the boat. As a matter of fact we're beginning to feel depressed right now.

We pointed out to Mr. Rhone what we believed to be the one feature of his ship which we felt might be a detriment to passenger enjoyment—namely that, in the interior design, all the rest rooms are on the windowless upper story. But Mr. Rhone was quick to explain that he had done this purposely, in the interests of modesty, so that no lady passenger taking a bath would find herself exposed to the view of passengers on a neighboring craft. This is typical of Mr. Rhone's all-encompassing inventive genius.

The Day is Coming—

Mr. Rhone, we salute you.

The foregoing are just a few of the samples of modern scientific progress available to the alert onlooker of the inventors' parade. The stars still remain in the heavens, unviolated by human heels. But the day is coming when Man shall fulfill his age-long quest. In a manner of speaking we might say it is already here. And then again, we might not.

GENTLEMEN, the

When interplanetary war looms, rebel and conservative forget their differences in a courageous plan to prevent devastation!



ONE thing you had to admit about Captain Southby. He was an efficient senior officer, commanding our company of twenty with an iron hand. Also, he was a gentleman and a scholar.

You saw it in his eyes as he entered the double doors of the ship's dining room, strode to the head of the table, and stood surveying us. While the clock pulsed away thirty seconds, he remained there motionless, noting with satisfaction the spotless linen, gleaming silverware, and the impeccable white uniforms of the twenty. Then he nodded.

"Gentlemen, be seated."

Once those words were spoken, laughter and casual talk began abruptly. But not once in the three years I had served on OB-5 had I seen any variation of that evening formality. Oddly enough, Southby never seemed to consider the fact that he officered a gang of scavengers.

Ever since the Conference of Nine, Asteroid OB-5—the letters stood for "obsolescence"—had been relegated as a dumping ground for all types of space vessels which were labeled out-of-date. It was part of a carefully formulated plan to stabilize the shipping lanes and the System's armament situation. In simple words it meant that no new ship could legally be constructed until an obsolete predecessor had taken its place on the asteroid.

There were twenty gangs—or as Southby preferred to call them, companies—on OB-5, and ours had the cream of the pickings. That is to say, we were nearest the arrival-docks. From the docks a ship was towed in-country by tracto-car. In swift succession, gangs of men swarmed through her, removing furnishings, engines, and all movable items, until finally the disemboweled hulk was bro-

ken into sections and taken to the melting mill. All usable material was marked and catalogued and sent to the salvage depot on the far side of the asteroid.

As I said, Company A had the cream of the pickings. It was our job to take the luxury items from liners, paintings, tapestries, visisccreens, and the various control devices from war vessels. Freighters and discarded mail ships went right past us without stopping.

COMPANY A was also the only gang that could boast the upper deckhouse of an old liner for living quarters. Southby had wangled that concession from the government somehow and had fitted out the ship as he would have his own baronial manor. There were rich carpets, draperies, and bric-a-brac, all of which had once graced the lounge of some space vessel.

As usual, talk that night centered around our salvage work of the day. And, as usual, it was the Rebel who started the trouble.

"Did any of you see those pictures I took out of the *Vega* this afternoon?" the Rebel said. "Worst bunch of daubings I've ever seen." There was a malicious gleam in his eyes as he glanced across at Southby.

"I wouldn't call them daubings," the captain said slowly. "Two of them are Tricardis. One is an Oliviant. Anyone who appreciates the Old Masters would be glad to get them."

The Rebel set down his water glass deliberately. "Are you saying I'm too dumb to understand them?" he demanded.

Southby shrugged. "I didn't say that."

"You implied it."

It was fortunate that Faulkner took that moment to reveal his personal find of the day, a new type Setlor compass, and as the instrument passed from hand to hand, some of the tension was relieved.

The Rebel was Clifton Barrow, and he had a brain that was as keen as a razor. But he was self-educated, whereas Southby was a

SCAVENGERS!

By **CARL JACOBI**

graduate of Martian Tech. It was not that, however, that continually put them at swords' points.

The trouble stemmed from their opposite social outlooks. Southby was a conservative and belonged to the old school. He liked old things, accepted scientific progress as a necessity, but hated change. Barrow, on the other hand, reveled in everything that was modern. He read all the latest philosophical

treatises, and he made no effort to conceal his disdain for the feudalistic caste system which Southby seemed to represent.

Dinner over, we retired to the ship's lounge where the captain began another formality, his evening talk.

"Gentlemen, as you know," Southby began, "my latest lecture experiments have had to do with molecular waves. Last week I described to you how I beamed radio micro-

Barrow came leaping out of the shadows



waves into a balloon filled with ammonia gas. The ammonia absorbed those waves and turned them into molecular energy which was transmitted to the balloon skin. The result was that the balloon skin acted as a loudspeaker diaphragm and gave off sound."

He paused to light a cigar. "Today I tried something different. I fired heat pulses into liquid helium. The helium registered a minus two hundred and seventy-three degrees Centigrade and of course didn't vibrate. But the heat came off its surface as sound. In other words, the heat waves had gassified its pent-up molecules in rhythmic bursts."

There were a few idle comments, but it was clear we were all waiting to hear from the Rebel. He didn't disappoint us.

"Old stuff," he said deprecatingly. "The Earth scientists invented talk-beam lamps ages ago. Why, last year Hom Vey, the Martian physicist, produced an infrared detector with an almost unlimited range by using lead sulphate with impurities of sulphur, oxygen, and crystallized carponium."

"I made no claim that it was an original experiment," Southby replied stiffly. "And incidentally, in the future I would prefer that you confine your comments to something other than ridicule."

All of which is by the way and has no part in the mystery that settled over OB-5. The mystery began on the twelfth of November when the "Great White Ship" blasted under her own power into Cradle 3 of the arrival-docks.

Our suspicions began when no release certificate was issued to Southby for this ship. Without such a certificate, of course, no dismantling could begin. For five days the ship lay in the docks, an unheard-of procedure. Then a small cutter without serial markings dropped in and disgorged a company of thirty troopers, all heavily armed but also without identification.

Under guard of the troopers, six tractors towed the Great White Ship inland, and they did it as carefully as if they were balancing eggs in a basket. About two miles from the salvage depot they placed it on a narrow otucropping shelf, inaccessible from three sides. Then came the Headquarters' bulletin:

All workers are hereby advised that the cruiser, *White Star* will not be dismantled until a future date. All workers will consider an area of five hundred yards surrounding this vessel as out-of-bounds.

RUMORS ran wild among the men of Company A. The ship was said to carry a cargo of valuable jewels and bullion and was being held as some kind of secret war indemnity. It was loaded with atomic explosives, designed to destroy this entire asteroid. It housed some monstrous, alien form of life, found spawned in outer space and brought here to be watched, scientifically, in its growth and development.

Even Southby didn't know the truth, or if he did, he was a better actor than I gave him credit for. But Headquarters should have known that this lack of explanation was bound to cause dissension. In this case that dissension centered upon us, for the simple reason, I suppose, that we were the envy of all other harder worked gangs.

The Captain of Company B, our nearest neighbor, complained to Southby that someone in our group had tampered with hold cargo. Twelve bottles of imported Venusian wine, still listed on the manifest, were missing. Now I had seen Barrow, the Rebel, drinking out of one of those bottles in our lounge only the night before, and so too, I was sure, had Southby. Yet Southby calmly told the Company B officer to go to blazes.

Next day the Company B men raided our camp. Six quartzite windows were broken in our liner-house; Faulkner received a nasty burn in the left leg from a delayed heat gun charge; and our rotating search lamp was shattered beyond repair.

Headquarters promptly cancelled all terminal leave and issued five salary demerits to each member of the two companies. But Headquarters said nothing more about the Great White Ship.

Meanwhile Barrow showed no appreciation for Southby's taking his defense in this conflict. Instead he continued to criticize the captain's nightly talks, and he made it a point to insert sly innuendoes in the dinner conversation, all of them aimed at arousing the chief officer.

The mystery of the Great White Ship grew deeper. As always, when faced by the unknown, the men became sullen and irritable. After all, why couldn't Headquarters take them into its confidence? Weren't conditions bad enough on this barren asteroid without having a hands-off enigma dropped into their midst?

Among the men of Company A the situation was perhaps worse than elsewhere, for ours was not the body-tiring work of the

other gangs, and we had plenty of leisure time. Discussions pro and con concerning the mystery ship passed across the table, and more than once only a quick intervention on the part of Southby prevented us from coming to blows. It was perhaps an outgrowth of this tension that accounted for the Rebel's unexplainable conduct on the night of the seventeenth.

That night Southby approached the table and surveyed us as usual before uttering his customary "Gentleman, be seated." He ran his eye over the company, then drew in his breath sharply.

Nineteen of our group stood there at attention. The twentieth, Barrow, was already seated and, apparently oblivious to us all, was calmly eating. Southby's eyes glinted, but his face remained expressionless. He spoke his introduction and sat down. When the meal was over, he went straight to his room, and we didn't see him for the rest of the evening.

"Who does he think he is?" the Rebel demanded. "All that formal rubbish! It's time somebody put a stop to it."

The following night there were only nineteen chairs about the table. The twentieth, Barrow's, had been removed by Southby's orders.

Barrow came whistling into the room, took the situation in at a glance, and calmly and deliberately took advantage of it. He seated himself in the captain's chair.

The explosion resulting from this act would have been far greater, of course, had not several events occurred at this time, events which were destined to change our entire lives.

First, there was the affair of the Company B man who submitted to curiosity and attempted to learn the secret of the Great White Ship. He was caught and, without the slightest suggestion of a trial, executed. The entire asteroid was stunned.

Next day came the Headquarters' bulletin:

Any worker overheard discussing any subject relating to the cruiser *White Star* will be subject to immediate arrest.

If there had been excitement before, there was nerve-racking tension now. The Company A men went about their duties during the day with grim faces. Nights, they sat about in small groups, conversing in low whispers.

Even Southby, to whom Headquarters

represented his one god—authority—wore a worried look, and he undoubtedly would have spoken his mind on the matter if he had not finally completed at this time his personal brain-child, a device which he proudly called his "star symphonizer."

This gadget was the result of several years' spare-time labor. Composed of a spectroscope, a screen, and an odd sort of timing arrangement, it would receive light from stars up to the fourth magnitude, pass that light through a diffraction grating and play the resulting spectrum on a screen. Each color band was keyed to a certain note of sound. Since there were seven primary colors and seven basic notes of the musical scale, Southby had thus constructed a kind of stellar color organ.

DESPITE his initial remarks of ridicule, Barrow displayed more than ordinary interest when Southby gave his first demonstration of the symphonizer.

"Do you mean to say that the music we hear will vary as the lens is focused on different stars?"

"That's exactly what I mean," Southby replied. "In my machine each color wave length has a corresponding wave length of sound. Now you know, of course, that the light emanating from a distant star reveals, through the spectrum, the elements which compose that star. As the composition of the stars vary, so will the spectroscopic band vary, and likewise the sound tones."

Barrow frowned slowly. "But where does your motion, your rhythm, come in?"

"That," replied Southby, "is my secret. I might tell you, however, that the device is so fashioned as to rotate the color bands past a shutter in ratio with the approximate distance the selected star lies from OB-Five."

Southby left his symphonizer in the lounge, saying that anyone who wished could operate it. But the device ran a poor second to the mystery that hung over the asteroid. The whisperings and the strained talk continued, and curiously enough, Barrow was the only one who seemed to show any interest in the captain's invention. Hour after hour he stood before its carponium panel, twisting the dials, tuning in one stellar obligato after another. One night he caught my arm as I entered the lounge.

"Care to try some of your wages with the fortunes of Lady Luck?" he asked.

"No," I said. "You know I hate poker."

He smiled. "This is better than poker. Come over here."

The Rebel's game soon became apparent. He tuned Southby's star symphonizer to a third magnitude star, Melaris-A. Next he brought out a small sympathetic vibrator and placed it on the table.

"Bet you two to one that middle C sharp or its color equivalent doesn't sound more than twice in the next twenty seconds."

By the end of the week Barrow had a lively gambling "concession" operating in the lounge. The game offered a welcome diversion from the brooding mystery that oppressed us all. The fact that he lost more times than he won didn't seem to concern the Rebel at all. He appeared, in fact, to glory in our uneasy anticipation of what Southby would say when he discovered what was going on.

But Southby had other things on his mind. On November 22 he delivered his bombshell. In simple words it amounted to this:

Southby feared something was amiss at Headquarters. The strange activities of recent weeks, the unprecedented bulletins, and the entire attitude of the "government" had convinced him that the rightful persons were no longer in power.

He pointed out that the Salvage-Governor's term of office had been up a month ago, and as yet nothing had been said about the arrival of a successor. He revealed also that the daily official reports sent to all gang leaders were not being signed in the usual manner and did not carry the customary Council-of-Nine seal.

"You know, gentlemen," he said, "that I would be the last person to suggest any activity of a mutinous nature. But in view of the facts, I think an investigation is our patriotic duty."

Southby then called for a volunteer to go out to the Great White Ship. For, as he said, "—therein would seem to lie the crux of the mystery."

Before anyone had opportunity to speak, however, Barrow stepped forward and switched on the star symphonizer.

"Choose your sound notes," he said quietly. "The first double tone that sounds after I strike the table wins. Or loses," he added, "depending on your viewpoint."

BARROW was gone two days, and still there was no sign of him. If no one else suspected, I for one new that he had

arranged his name to be chosen for the one to go. Southby paced the floor nervously. And as the hours snailed past, gloom settled over the liner-house.

Then suddenly the door banged open, and there he was, alert and showing little sign of lack of sleep. We clustered around him, filling the air with questions. He smiled grimly and waited until we had quieted.

"Yes," he said, "I got through to the ship. I was nearly discovered trying to enter the after-hatch and had to lie under the gangway for six hours. I—"

"Did you learn anything?" Southby interrupted. "Did you find out what was in the Great White Ship?"

The Rebel nodded and paused for the right effect.

"Yes," he said, "I did. Gentlemen, there's a woman there."

For a long moment none of us spoke. Then Southby uttered a puzzled exclamation. "What woman? Talk up, man!"

Barrow smiled quietly. "The woman is Dorna Duhalla!"

Had a ray gun blasted into our midst, the effect could have been no greater. Dorna Duhalla, the almost legendary mystic, the self-appointed feminine apostle of peace who spent her life touring the spaceways, traveling from one planet to another, preaching the golden rule.

Duhalla, worshipped by the masses for her philanthropic aid to the poor and downtrodden! It was she who had made a dramatic appearance before the Council of Nine four years ago and by her masterful oratory prevented a System-wide conflict which was brewing. Since that time she had had *carte blanche* to all ports and she had gone about her mysterious way.

What was this woman doing on OB-5? Southby thought a long time and at length had the answer.

"It's clear," he said, "that the trouble between Venus and Mars is coming to a head. So far the one thing that has held off open conflict has been the general feeling of security advanced by the knowledge that there was a definite balance of power in space armament.

"Destroy that balance, by forming a fleet of reconstructed ships here on OB-Five and adding them to one planetary ensign, and the powder keg would be ignited. And if"—and here Southby's eyes took on a hard glitter—"the common man citizenry of one

planet could be convinced that that courier of peace, Dorna Duhalla, was the guiding genius behind this move on the part of their adversary—then the war could begin in earnest."

"But what's to be done, sir?" Barrow asked.

Southby chewed his cigar slowly. "Well," he said, "two can play at their game. Mr. Barrow, what ship is scheduled for dismantling tomorrow?"

"The *Venusian Queen*, sir," the Rebel replied.

"How long would it take to put her in working condition?"

Barrow stared; then his smile widened into a grin. "I see what you mean, sir."

On the twenty-fifth, Barrow again went on a scouting expedition to the Great White Ship. He returned with disheartening news.

No force of men, certainly not the twenty of Company A, could hope to take the ship. One man alone might reach the Duhalla woman, but only if aided by Providence.

"And since I'm the only one who knows the lay of the land, it'll be my job," Barrow said.

Southby made no comment. He had sent word to Headquarters that because of the unusually large amount of furnishings left in the *Venusian Queen*, the initial dismantling work of Company A would take longer. Meanwhile we were working like mad to put the discarded ship into operating condition. Twelve men were assigned the almost superhuman task of repairing her motors, while the rest of us labored with the control wiring, most of which had been torn out when the ship was designated for the scrap pile.

Two Headquarters inspectors came down to investigate the work, and for an hour we held our breath. But Southby invited them to the lounge and kept them there with a line of smooth talk and a bottle of equally smooth Scotch while the rest of us did everything we could to mask our recent activities.

Finally the night came. At eleven o'clock Barrow left. He carried a short-nosed heat pistol, equipped with a flame-darkener, a length of rope, and a tiny but powerful quartzite-cutter.

At eleven-five, ten men under command of Faulkner headed for Cradle 5 of the arrival-docks where the *Venusian Queen* was warped. That left Southby, myself, and sev-

en others. Quickly Southby divided the seven into two groups, set them at patrolling duty outside the liner-house. Then he strolled over to his star symphonizer.

"Lorimer," he said to me, "what would you say is the most important thing on this asteroid?"

"The most import—" I stared at him. "Why, the salvage depot, I suppose, sir."

Southby nodded as he fondled the symphonizer controls. "Exactly. The salvage depot contains all the extra parts, tools and equipment which would be necessary to organize a war fleet. But the salvage depot also contains something else. An improved Courtney atomic pile and the accompanying isotopes. Am I right?"

"Of course," I said. "It's the source of power of the entire asteroid—the dock cradles, the tracto-cars, the lighting—everything."

He nodded again. "And if I remember correctly, the Courtney pile is encased in arelium-darkite, a substance which even light in weight and thin in texture and possessing great shielding powers, also happens to have a vibration pitch in the ultrasonic scale of ninety thousand cycles."

"What are you getting at?" I demanded impatiently.

"Suppose I utilized this symphonizer to send an ultrasonic wave of ninety thousand cycles into that pile?"

And then it hit me. "Good Lord!" I cried, "you can't—!"

CALMLY Southby consulted his watch. "Barrow should be at the Great White Ship by now," he said. "Give him a quarter of an hour to make an entrance, fifteen minutes more to contact and convince the Duhalla woman, and say another quarter of an hour to get out. If we start now, we should meet him at the halfway point." He turned suddenly, all efficiency.

"Lorimer, get the tracto-car out of the storage shed and help me load the symphonizer in it."

For ten minutes we went careening down the uneven rock roadway, winding around the black escarpments. Only above was there light, the incandescent glory of the cosmos. Abruptly Southby brought the tracto-car to a stop.

"Something's gone wrong," he said. "Barrow should be here."

We sat there, staring into the darkness.

Ahead, far to our left, a vague glow marked the power plant of the salvage depot. Suddenly a squad of running figures appeared in the gloom, and a brittle voice said:

"Don't move. You're under arrest."

Ten troopers swarmed down upon us, heat guns leveled. In a matter of seconds they had pinioned our arms, clamped steel bands about our wrists and ankles. The leader surveyed us and smiled sardonically.

"It might interest you to know that we've got another of your men at Headquarters. The fool was crazy enough to try to get into the *White Star*."

They threw us in the rear compartment of the car and posted two guards over us. "Go to the Company A liner-house," the officer directed the rest of his men. "Place the entire gang under arrest."

Then we were moving down the roadway once again, this time with the car's atolight boring a hole through the darkness. Looking across at Southby I saw that he, too, was in the depths of despair. The car jounced on monotonously, eating up the miles. It was the captain's fault, I told myself bitterly, that we were in this predicament. With his usual flare for the dramatic, he had tried to play a lone hand. Why hadn't we taken off in the *Venusian Queen* and headed for Earth, there to report to the Council the conditions we suspected?

In the darkness Southby seemed to read my mind. "It was our only chance," he said bitterly.

A mile from Headquarters the car suddenly skidded to a halt. Ten yards ahead, squarely blocking the roadway, a huge boulder lay in the glare of the atolight. The officer leaped from the car and clutched at his heat pistol.

But he got only half way. From the blackness beyond the atolight a faint tracer of flame lanced across the intervening space. The officer collapsed without a sound.

The remaining three troopers vaulted out of the car as one man. Twice again that sliver of flame sped to its mark, leaving two of the men writhing on the ground. The last guard was no coward. He ripped free one of the car's side panels, and holding it before him as a shield, began to run forward toward the source of those ray charges.

And then Barrow came leaping out of the shadows to meet him. They struck like blocks of wood, began hammering each other mercilessly there in the roadway in

the ato-beam glare. While Southby and I looked on helplessly, Barrow warded off a series of savage blows, then feinted with a peculiar weaving backstep. The trooper rushed in for the kill. But Barrow swiveled and drove his right arm forward like a piston. The trooper went down in a heap.

Barrow darted back into the shadows and reappeared a moment later, leading a young woman. Even through her plastic helmet I could see a face of ethereal loveliness, tempered by a resolute mouth and strong dominating eyes. It was a face that at once lured and radiated power, and it was framed by a cascade of blue black hair.

"This is Dorna Duhalla," Barrow said. "They caught us as we were making our escape from the Great White Ship, but we managed to escape."

He saw the clamps on our wrist and ankles then, quickly slipped a reducer on his heat pistol and in rapid succession placed the muzzle against the looks. An instant later the shackles fell free.

"I'm afraid the jig's up," he went on grimly. "By now Headquarters will have notified the docks and spread the word over the entire asteroid."

"Not the docks," replied Southby. "Our men had instructions to throw an interference shield between their televisors and Headquarters' transmitters." He turned to the Duhalla woman. "We're going to try and get you off OB-Five. There'll be considerable danger. Are you game to try?"

"Of course," she said. "Anything is better than submitting to those war lords." Her voice was low and throaty with just a suggestion of a Venusian drawl.

The Captain nodded. "We'll cross overland through the Divide. They won't expect that, and we may be able to pick up another tracto-car at the Company C diggings."

He drove the car off the roadway, hiding it under a shelf of overhanging rock. A moment later the four of us were striding rapidly along the plateau.

IF THAT mad cross-over trek I remember little. Through the darkness, over razor-edged rock that cut our shoes to ribbons, we raced against time, spurred on by the tireless Southby. As he paced along, the captain told Barrow of the failure of his plan to destroy the atomic power plant by

means of the symphonizer. Suddenly we reached the Company C camp.

Silent as shadows, we ran the tracto-car out of the lean-to shelter. Then we were speeding toward the arrival-docks.

The docks were in darkness when we reached them. Southby flashed a pencil zett-light three times, the pre-arranged signal, then led the way cautiously toward the massive shadow that was the *Venusian Queen*. Half-way, Barrow uttered a soft cry of warning and jerked up his heat pistol.

"Wait!" Southby commanded.

It was the seven men who had been detailed to patrol the Company A liner-house. They had been victorious in their skirmish with the Headquarters' troopers and had come here.

Unaccosted, we reached the improvised gangway, crossed it, and entered the *Venusian Queen*. Inside the ship, behind darkened ports, everything was in readiness for a take-off. From below decks came the muted throb of the rebuilt engines. Faulkner stood at the manual pilot, awaiting orders to cast off. In the forward-cuddy two men raced to set up a twenty-pound, short-range genithoid gun which had been discovered at the last moment in the lower hold.

Southby made a rapid but careful inspection, then turned to Barrow. "It is now two thirty-five A.M.," he said. "Set your watch. In exactly five minutes blast off."

Barrow looked puzzled. "Where are you going, sir?"

The captain passed a hand wearily over his eyes and smiled. "I'm a little done up," he said. "Guess that hike across the Divide was too much for me."

There was an odd glitter in the Rebel's eyes as he saluted and nodded. Two slow minutes ticked by on my wrist watch. The lights were extinguished, and the cover-panels slid back on the stern ports. From below decks came a singing whine as the engines were jockeyed to full power.

The Rebel touched my arm. "Take over, Lorimer," he said. "I'm worried about the Old Man. Going to see if he's all right."

I say now that it was the excitement of the moment that hid the significance of his words. Watching the illuminated hand of my watch, I waited. Hollow and muffled sounded the metallic clang of the after-hatch as it was opened and closed.

"Cast off!"

There was a roar of a thousand thunders

and a violent lurch that sucked the breath out of our bodies. For an instant a wave of blind vertigo swept over us as the great ship knifed upward into space.

Then the overhead lights went on again, blinding us. Faulkner burst into the cuddy.

"Barrow and Southby!" he cried.

"They're not aboard, sir."

I stared. "What do you mean?"

"They knocked out our man posted at the after-hatch and went ashore a minute before we took off!"

AN HOUR later we stood on the *Venusian Queen's* bridge deck and gazed through the massive observation-shield at the orange-sized globe that was Asteroid OB-5 far below us. "Why did they do it?" I said. "Why, Why?"

No one replied. At my side Faulkner spoke through the mike to the control-cuddy. "Drop five thousand, reduce speed to one-quarter forward and circle on a number three parabolic."

The *Venusian Queen* dipped back toward OB-5. Down there two men were racing against time, fighting to cross a darkened expanse of razor-edged rock and reach the star symphonizer, hidden in a concealed tracto-car. The odds were against them, for even if they did reach the symphonizer unopposed, they must still wheel it across a mile of guarded and heavily mined roadway to the salvage depot. There were the impenetration walls to pass, the automatic ramp to navigate—

We were close in now, and through the infrared filter that Faulkner dropped over the observation-shield, we could see the barren contours of the asteroid. Faulkner squinted through the magnascope.

"Two cruisers making ready to take off, sir," he said. "They'll be after us in a moment."

But still the *Venusian Queen* did not change her course. And then suddenly it came! Below us a titanic orange-colored ball of fire appeared, to outline tumbling rock crags against black escarpments. It was gone in an instant, to be replaced by a mounting gray-black cloud. Then the smoke slowly diffused, and there was only a dull glow like light seen through a blank negative.

"That was a glorious thing to do," Dorna Duhalla said.

Faulkner nodded. "You know," he said, "they were both gentlemen."

DUD

By **KENNETH
PUTNAM**



The astrogator's face appeared in the curve of the panel. He was grimly determined to wreck himself in the space rip

DUD

By KENNETH
PUTNAM



The astrogator's face appeared in the curve of the panel. He was grimly determined to wreck himself in the space rip



When the prison ship *Sunstroke* was about to have its atoms torn apart, ex-space officer Butler tackled the problem with his keen understanding of Martian nature!

CHAPTER I

*Threat to the *Sunstroke**

SO THERE I was. Set. The war was over, and the moment the *Sunstroke* landed on Earth I would hand my prisoners over to some official of the War Crimes Tribunal and be a full-fledged civilian again. I would be free to drink the wine, sing the song and—well, you know what I mean—all set.

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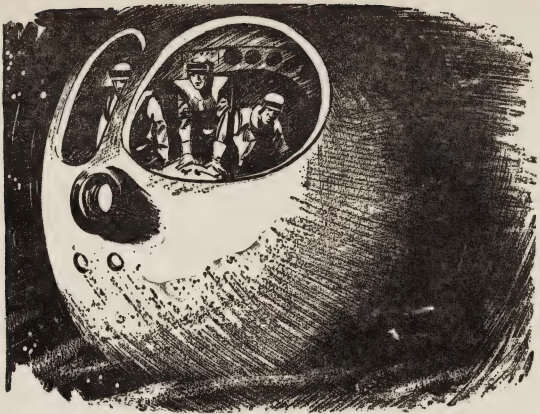
Navy in bringing my peculiar charges to justice. I hoped I'd be able to afford a vessel like her someday. When I had been a civilian for a long, long—

My eyes drooped shut. Jimmie Troksee would be waiting me in four hours to take over the watch on the prisoners. And I'd have to be super sharp. I dozed.

"Mr. Butler!" I twitched up to a squint. Captain Scott's huge head was glaring from the communitator. "Report to the bridge on the double. On the double, Mr. Butler!" He failed miserably.

I tilted the bed, got out and dressed. Five years in the service and you develop certain reflexes toward orders. It was only after I'd walked through the doorap that I remembered to stop and curse.

A NOVELET OF THE SPACEWAYS



When the prison ship Sunstroke was about to have its atoms torn apart, ex-space officer Butler tackled the problem with his keen understanding of Martian nature!

CHAPTER I

Threat to the Sunstroke

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A NOVELET OF THE SPACEWAYS

"What in all infested outer space does that spacehound mean by talking to me like that? I'm army, not navy. Not even that, I was discharged before we took off. And my only responsibility is to and for the prisoners. I've got to make a couple of fine distinctions for the old boy."

All the same I started for the bridge. But not before I walked to the end of the corridor to see how our Martians were getting along.

Jimmie Trokee, my junior, was lounging against the doorap of the combination prison-stateroom. He dropped the cigarette quickly and ground it out.

"Sorry, Hank. But honestly, everything's under control. Rafferty and Goldfarb stopped their chess game so I could get a smoke. They won't miss a trick."

"Sure," I said. "I do the same thing, myself. Your lungs get awful dry in that joint. How are our friends feeling? Still taking baths?"

He grinned. "Didangul took five during my watch. His two pals spelled him in the pool. Only a Martian could loll in the water like that with a probable death sentence hanging over his scaly head!" His face tightened. "But when they aren't bathing, they fool around with that converter and whistle at each other."

"I know, I don't like it either. But the white-haired boys at headquarters cleared their request for the gadget. Said they couldn't possibly make anything dangerous with one that size. It's all part of this coddle-them-before-you-kill-them idea. The condemned Martians surrounded a hearty supper."

"Yeah. I don't get it. When I think of what Didangul did to the boys of the Fifteenth Army. Of course, they can't spit a weapon out of the converter. All they've been getting is tiny hunks of neutronium that not even the three of them can lift. Yet—"

"Mr. Butler," a communicator shrilled down the hall. "Captain Scott says if you aren't on the bridge in two minutes, he'll send a detail to drag you up by the short hairs."

Jimmie got angry. "Who does he think he is? You don't take orders from that guy. He's navy!"

"He's the captain of the ship," I reminded him. "You know, power of life and death in empty space. I better get going."

"Well, don't take any guff from him," Jimmie called after me. He waved his hand

at the doorap and walked through.

I adjusted my tunic before walking through the heavy panel leading to the bridge, and straightened the Eagle over Saturn on my chest. The first PX our occupation forces had established on Mars was stale out of civvies; I was wearing my uniform home. And Scott was death on sloppy uniforms.

THEN I caressed the panel and started through. Whop! I massaged my nose and blasted the Terran Navy from heck to brunch. Why they had to remove a perfectly good doorap and substitute an oldfashioned hingie just because of naval tradition—

I felt around for the doorknob and walked in, still aching in the olfactory. Nobody so much as batted a wink of sympathy at me. Everyone, but Cummings the quartermaster, was clustered around one of the five great viscreens in the bridge. I sighed.

"Mr. Butler," Captain Scot called over his shoulder. "If your manifold social obligations will permit you to comply with my suggestions, would you care to stroll up to the screen for a moment?"

I glared at the back of his shaggy head and light blue fatigues. Then, very obviously, I stroled up to the screen beside Lieutenant Wisnowski, the astrogator. I heard Scott rub his teeth against each other and Wisnowski twisted a quick grin at me.

There wasn't much on screen that meant anything to me. A fairly large disc of Earth, the Moon approximately the same size, lots and lots of little lights that were stars or meteors or fireflies.

"What do you expect me to—" I began.

"This part," Wisnowski said, whirling a little doohickey with a handle. A section of the screen in front of me seemed to spread out and the little white lights got thicker.

There was an odd something moving there, a something with an irregular shape and all kinds of protruding edges. Dark brown in color, it seemed to jerk itself along. I'd never seen anything quite like it before.

"Small asteroid? Meteor?"

"Neither," Scott told me. "It's not on any chart and this area is mapped to twelve decimal places. The speed and movement—jerky movement, you notice—disqualify it as a solar body. Besides, it's been following us."

My mind danced in the Martians below. "Rescue party?"

"Hardly think so." The captain walked to

the middle of the room where Cummings sat alertly before his hundred switches. "Forty, five-nine, forty. The object has no discernible jets."

"Forty, five-nine, forty," Cummings mumbled through his wad of tobaccogum. He flipped three switches toward him, moved two others back. He peered at the slowly revolving "grampus" on the ceiling. "Forty, five-nine, forty. On arc."

"Well, if it has no jets, how can it be following us?" I asked reasonably. "I don't know how far off it is, but—"

"Over three hundred thousand miles." Captain Scott had returned to the visiscreen and was studying it intently. I was amazed at the look of worry on his old, space-pale face. "Much too far away for gravitation to be asserted, if that's what you can't understand, Mr. Butler."

"The *Sunstroke* may have been a large yacht, but it makes a very small naval vessel, and that thing is too tiny for any real attraction to exist. Yet it moves at approximately our number of gyros, and—see there, now!—it changes course with us."

Sure enough it did. As the *Sunstroke* curved into its new arc, the celestial bodies on the screen seemed to slant away. All but our new little friend. One of its great uneven edges came round slowly and the whole mass moved into relatively the same position on the screen it had held before.

"Lock the magnification, Mr. Wisnowski."

The astrogator pushed on the doohickey and it clicked into permanent place. He and the captain hurried back to the chart table. The second officer, after an anxious look at the grampus, moved to the door and left the bridge. Not before another sidelong glance at the thing in the visiscreen. "I'll check battle stations, sir."

"Good. And you might sound a secondary alert. I called you to the bridge, Mr. Butler, because I believe this—whatever it is—is definitely related to your distinguished prisoners. Perhaps—"

"In that case, I insist you radio Earth immediately. Or a military base on the moon. They'll send whatever help—"

"Mr. Butler! You insist? You? Until such time as you can carry five red jets on your shoulders, I give all the orders on this ship!" He had whirled to face me angrily, his lips curved into each other. The old boy was mad down to his bottom gyro.

But I still had statements to make for publication. "You're master in all spatial matters," I told him, trying to imitate his bluster, "but I'm directly responsible to the War Crimes Tribunal and, through them, to the Solar Council for the safe delivery of these prisoners. Didungal is the only one of the four peritic tetrarchs we caught—"

"I don't care if he is the chief embezzling field-marshal in the whole blasted Terran Army, I still give all orders on this ship. I can prove that to you, if necessary, by throwing you into the brig, the real brig—not the fancy home away from home those lizards are enjoying."

"You have chosen to become a civilian, Mr. Butler—though you still prefer the uniform—and, as far as I'm concerned, you are merely a civilian employee of the government charged with seeing that three sensitive Martians don't catch colds or commit suicide. You take orders from me and my officers—is that clear?"

CHAPTER II

Desperate Measures

DEELY inhaling, I thought of pointing out that all of us "civilian employees" were the most frequently wounded and decorated men in the entire Third Corps, who had elected to take their discharges on Mars, and who had volunteered to guard the most vicious criminals of the Peritic War on their way home because no occupation troops could be spared. But—I grimaced, but didn't unzip.

"Good." Some of the red lines in Scott's face faded to pink, and he picked a book off the chart table. "I won't use the radio—as you call it, in army slang—because of the *Jetsam* incident. You've heard of it? The *Jetsam*, a small scout operating off Deimos about a week before the armistice, reported via radarito that it was being followed by a strangely shaped object that matched its speed but seemed to maintain its distance."

"It broke in on its own message to announce that the object had accelerated since transmission started and was now approaching very rapidly. A moment later, the entire Deimos beachhead was shaken by a tremendous spacerip blast. Nothing of the *Jetsam*."

or its crew was ever found."

"M-m-m-m. Spacerip yet. Atomic channels aren't bad enough. So you won't use the radio—oops, radarito—because you're afraid it'll help set off this mine, or anyway excite it to increase its speed. But a mine doesn't make sense. If it's anything that new, the Martians haven't had time to plant it. They've cleared from this area since long before the Battle of the Southern Hemisphere."

"Not on this side of the moon," the captain pointed out. "There are still guerilla bands of peritic Martians holing out in forgotten mountain forts on the moon. It may be a loose mine—or a new fangled sort of proximity shell. It may be practically anything. It's probably a dud, in any case, but that doesn't make it less dangerous. It might be one of our own weapons. The Martians are essentially imitators. They haven't discovered a single scientific principle for themselves."

I smiled at him and shook my head. "Don't go falling for our propaganda, Captain. The Martians are, each and every one of them, better scientists than any five thousand humans. Just because they weren't interested in mechanics until we caressed their scales with all sorts of nasty weapons. Why, the gyrospeed drive your ship is using was copied from a Martian derelict in the war's first stages."

"I wasn't aware that was publicly accepted, Mr. Butler," he said, his thin body very erect in the blue uniform. "Mr. Wisnowski, how many gyros are we turning?"

"Five, I think."

"You think?"

"Five, I know," Wisnowski amended after a hasty glance from the grampus to his charts.

"Raise it to nine. I know it's over our limit, but tell the engine room we'll hold that acceleration only until we've shaken this dud, if it is a dud."

Captain Scott walked swiftly past me to the visiscreen and opened the book in his arms. He turned the metallic pages slowly, staring with desperate intentness first at the illustrations and then at the weird brown object in the magnified portion.

Wisnowski raised the engine room on the communicator and ordered the nine gyros. He closed the switch on their surprised yelps.

"Don't mind the old cometcatcher," he

whispered. "He won't take any back talk from even an ex-army guy. It's a shame we have to have two separate services in the first place. Crazy jurisdictional squabbles in the middle of a war whether a battle is deep-space or planet-based. It's silly and positively nineteenth century."

I AGREED with him. "But the captain was way off base when he said I had to prevent my Martians from committing suicide. Catching colds yes, committing suicide no. If a Martian could ever bring himself to voluntarily slither off into the great moist beyond, we'd have lost the war a month after Antarctica was gouged out.

"They've been civilized too long and enjoy life too much for that. They'd have stayed civilized, too, if we hadn't objected to their dreaming in their baths and insisted on showing them the delights of pugnaciousness. How their placidity used to annoy us!"

Wisnowski nodded. "Most soldiers I've talked to feel the same way. I remember how everyone was intrigued when the first two Martians were persuaded to attend an old-fashioned heavyweight fight at Madison Square Garden."

"Sure. We're responsible for changing an attitude a million years old. And then, the people we used to colonize Mars! The supermen philosophers of Germany and Japan whom we didn't have the nerve to kill after the second atomic war."

"Drop to six gyros," Captain Scott called. "This thing has increased its acceleration to match ours. I hope you're keeping an accurate account of all this in the rough log, Mr. Wisnowski."

"Yes, sir. I am. Very accurate," Wisnowski blushed, passed the order down to the engine room and began to write very rapidly. I was glad I'd never served under such a commander. "Almost forgot about it completely," he whispered, after a while, his eyes glued to the log.

"My dad told me how the government sold the idea 'Let those brilliant but misguided men build a new life for themselves on a new world. They will help themselves become better in the struggle with this hostile planet—they will help humanity stretch its empire farther into space.' Empire—phtaaa!"

"Well, the only ones they helped with their muscle-man methods and garish ideas were the peritic Martians who simply modified super with Martian instead of man. In

thirty years, the Perites grew from an obnoxious little cult to a major political party. When Martian scientists began toying with weapons instead of new ways of making water spray off their scales, humanity just—

"Nine gyros!" Scott yelled. "Get back to nine gyros!"

"Raise it to nine again," Wisnowski flashed into the communicator. "And no argument! What's up, sir?"

He ran to the captain's side; I scuttled after him. Scott pointed a shaking finger at the screen. The brown mass had grown larger. More details of its odd, broken shape could be seen. "Look at that! It increased its acceleration to match our limit, but when we cut to six, it stayed at nine. Now I'm sure it's a dud—some sort of naval proximity shell."

"There's nothing in the naval bulletin about it; just some vague notes like, 'it's believed the Martians have been attempting to develop an improved proximity fuse using a spacerip type warhead which will adjust its speed to that of the pursued object, making landing and deceleration impossible.' Of course, we can't think of deceleration if that ungodly pebble will stay at our maximum. But the desk-bound idiot writing the bulletin doesn't mention a countermeasure!"

"Probably had no idea what it was like," Wisnowski made faces at the screen. "Just wanted to let commanders know it might be around sometime. Then they're on their own."

CHAPTER III

The Water Torture

EVEN Cummings had lifted his eyes from the hundred switches and was chewing his tobaccogum at the deadly missile uneasily. I couldn't understand all this crazy concern and decided to say so.

"The *Sunstroke* is fitted with atomic channels, isn't it? Why don't you just reach out and bop it one?"

"Mr. Butler," the captain enunciated in slow irritation. "You evidently haven't been out in deep space since the Battle of Deimos, if you think you can blast a late-model proximity shell. They are all adjusted to absorb sufficient power from the blast to reach the

ship of origin in a fantastic spurt before they explode. No, we can't blast it; but we can't hold nine gyros for long, either! This has us where the hairs are long, short and middle-sized."

Shiver my girders, I thought, this is a horse-collar of a different button! I remembered hearing about that new principle—temporary immunity and total absorption—they'd been building into the latest proximity shells, but I was so deep in underground operations around Grinda City at the time that I'd hardly bothered to file the information.

"But just a moment, Captain; this is a dud isn't it? And a dud is a shell that hasn't exploded. So how can it—"

"A dud is a shell that hasn't exploded—yet. And in the case of a naval proximity shell, it's one that has failed to be attracted to a target, very possibly because it hasn't encountered one—yet. Mr. Wisnowski, what is your opinion?"

WISNOWSKI rolled his lower lip under his teeth and jabbed at his chin. I waited, more than a little anxious myself. This total absorption deal—that explained partially why radio couldn't be used, why we couldn't get away in lifeboats.

Any additional expenditure of energy would be used by the missile to increase its speed, already equal to the ship's maximum. It also meant that, since every manmade object in space radiated a certain amount of energy as it streaked through the vacuum, these nasty playthings must eventually catch their targets. But what did they use for jets?

"With your permission, sir," Wisnowski was saying. "I'd like to take a red herring out."

"Was hoping you'd say that, Mr. Wisnowski. We are well into the period for considering desperate measures. But I would never order a man into a red herring. If you hadn't volunteered, I myself—"

"Hold your lanyards," I told both of them. "We had red herring maneuvering way back in army basic. I'm supercargo on this wagon, just a valet to the Martians, so why shouldn't I carry the ball? I don't want to do anything that sounds like volunteering, but Wisnowski here has three wives while I—"

"Haven't even got one. But you will have when you get back to civilian Terran jurisdiction—new law. With all the guys that got knocked off in the war, how do you think

there will be a next human generation if people like you hang on to their individuality so hard? Anyway, Butler, you're on your way out of the service and the captain would want this to be a strictly Navy job." He started out before I could get my formal protest exhaled.

"Send the second officer in to relieve you," Captain Scott called after him. "And have a detail bring up that Martian fellow—Dangdang something."

I whirled on him. "My instructions were to keep Didangul under close guard in the cabin!"

"Under the emergency powers vested in me," the captain barked, "I hereby invalidate your instructions. I'm positive this is a snake trick, and, if anything happens to Mr. Wisnowski, I intend to burn the secret out of them—Terran Justice Code or no Terran Justice Code!"

"Not a chance. Those babies, and especially a character like Didangul, can take more punishment than you can deliver before they'll crack. And they're smart enough to know that if they're hurt too badly, it won't do you any good to get away from that dud, because you'll be blasted by the twenty-two, thirty-four edict of the War Crimes Tribunal as soon as we hit Earth."

The second officer came in and took his position at the screen, his coal-black face twisted with worry. I knew how he felt. Under normal circumstances, a red herring was just a refined way of committing suicide while making certain your dependents received a posthumous medal. You took an open single-seater out and circled the proximity shell until you attracted it.

Then, when it changed its course and barged after the lifeboat, you jetted yourself out of the seat and just floated around in your space suit until the ship picked you up. If you were still around, that is. A spacerip covers a prodigious area, atomic channels almost as much.

With this gadget on our trail, it would be a little different. For one thing, the missile was already moving at almost as many gyros as the single-seater could turn; that meant that there wouldn't be much of a time gap between the attraction and the impact. Add to that fact that this new shell was almost certainly using spacerip, and Wisnowski stood a slightly better chance of being picked up by the ship afterwards than I did of getting a royal flush in spades the next

time I played a hand of stud poker.

I slapped the second officer's back awkwardly. Wisnowski was evidently one of the more popular characters on the *Sun-stroke*.

SOMEBODY slammed against the door and began cursing in most colorful Afghan. I chuckled—Jimmie Trokee was also being reminded of the naval prejudice against dooraps on ships' bridges.

Then the door opened and Jimmie backed in, his Stiffiltz at the ready, followed by nineteen feet of wet, angry and superbly insolent lizard. Rafferty sauntered in behind the twitching tail with another Stiffiltz.

"Goldfarb's keeping an eye on his two pals," Jimmie told me over his shoulder. "Want me to tie him up?"

"Yeah. You'd better."

Jimmie made an adjustment in his weapon and sprayed the Martian with a web of fine, low-power Stiffiltz threads. When the former tetrarch was reduced to a mere wagging of the head and jaws, my junior handed the weapon to me and started out with Rafferty. "He's in your hands now, chief," he cracked with a nod to me. Captain Scott said something which wouldn't have been printable even if it had been translatable.

"What's he saying?" the captain asked. Didangul had been whistling at the ceiling.

I waited until he repeated it, then I was almost afraid to translate. "He says he has been pulled out of his bath most unceremoniously and is feeling chilled all over. He says he is highly susceptible to colds and will probably catch one now. He wants to know if this is the vaunted democratic justice of Earth."

"And this is the monster who slowly dehydrated fifteen thousand men in his own palace a week before he bothered to make a formal declaration of war! The slimy—when I think of all the water headquarters diverted from their own supplies just so these blisters could be comfortable on their way to trial—Ask him if he knows anything about that lump of whatnot out there."

I whistled Scott's question at the Peritic Martian and listened intently to the answer. All I knew was the pidgin, and Didangul was perversely using literary Martian with all of its triple images and expanded noun phrases.

"He says he does. Probably one of his friends on the moon. Says we can't possibly

escape it, no matter what we do. Says he will trade information on the only counter-measure for an ironbound opportunity to get away. By ironbound, he says he means give his fellow-prisoners a lifeboat and two hostages. After he's told us the counter-measure he'll enter the lifeboat and the hostages will be released. He won't have to worry about pursuit since the ship will be limping after traveling for so long at nine gyros."

"He doesn't, eh? Tell him to go straight to—to the Sahara! I wonder how this snake would stand up under a steady bath of medium power Stiffiltz? Or some neurone tickling—Martians are as cowardly as Ionian Skeinicks."

"Even more so," I shrugged. "But only when it involves somehow the voluntary choice of self-destruction. They're fairly hardy—Perites especially—under torture. This individual knows enough about Terran government to understand we run as much risk by killing him as we do by kissing that proximity shell. On the basis of that knowledge, I don't think he'd ever crack, even if I could sanction such persuasion."

"What about psychological prodding? I understand the water needs of so-called civilized Martians are fantastically high. Perhaps some sort of a thirst treatment—"

I considered that. "First, there's the difficulty that Didangul here has just come from a combination bath and drinking party. We don't have nearly enough time for him to generate sufficient thirst—"

There were two flat noises from the nose of the ship. "Mr. Wisnowski has just jetted," the second officer reported.

Captain Scott and I hurried to the blue screen where a tiny orange dot moved in a straightening arc towards the jagged shell. It curved away after a while and shot off in the direction opposite the *Sunstroke's* flight.

"The shell isn't following," Scott breathed. "The lifeboat has failed to attract it! Impossible!"

But it hadn't. Wisnowski, evidently noticing the failure of the maneuver, turned back to the shell in a diminishing spiral. The jagged brown mass completely ignored his tiny vessel. It continued following us in obstinate quest of self-destruction.

"The crazy fool! He intends to—he's trying to— Where in blazes is that communicator?"

Scott seized the curving panel with both hands and brought his great head almost inside it.

"Mr. Wisnowski! Are you trying to crash-explode that shell? Answer me, Mr. Wisnowski. This is your commanding officer speaking!" The astrogator's face appeared in the curve of the panel. "It's all that's left, sir. I can't get it to follow the lifeboat. I'll set it off and—"

"I'll break you, Wisnowski, I'll reduce you to third-class messman! I will not have my officers taking it upon themselves to throw their lives away, do you hear? Return to ship immediately. Immediately, Wisnowski! Don't you know that such an advanced weapon as this can't be detonated by a mere crash of an extraneous body? And your lifeboat is obviously irrelevant to the ship's course."

The lifeboat's spiral continued. Two or three more complete curves, and—

"I know there isn't much chance of detonating it, sir, but just the barest possibilities now—"

"Are matters that only I determine," the captain yelled. "We need you as astrogator, Wisnowski. Our only chance of evading impact depends on your presence on the bridge with me. I vitally need your help in formulating decisions. Return to ship, Wisnowski, or I promise by all that's holy to strip your uniform down to underwear!"

There was a moment of silence after this somewhat complicated threat. Then the speck of orange angled sharply away from the oncoming shell. It moved back towards the ship. We all breathed loudly again.

A few moments later there was another high note and slight thud as the lifeboat entered the *Sunstroke*.

Captain Scott walked over to the chart table and poured himself a tumbler of water from the carafe.

CHAPTER IV

Spacerip Terror

HEARING a rattle behind me, I turned, bringing the Stiffiltz up. Didangul, tightly wrapped in the golden threads, was stretching a yearning claw at the water bottle. Greedy! He'd practically just emerged

from a bath, but get a Martian anywhere near water, in sight of wet stuff—

He saw my sneer and straightened. "After this fiasco, are the humans prepared to bargain?" he whistled.

I didn't bother to answer. How he knew what we had been doing puzzled me for a moment. No Martian, peritric or of any other cult, had ever deigned to learn so primitive a language as Universal Terran. Then I remembered he'd seen the whole operation in the screen; these babies were much more than normally intelligent.

"We're worse off than before," Scott was worrying. "The radiation from the lifeboat has increased the shell's acceleration to approximately nine and one-tenth gyros. It won't be long now. Hear that rumbling? The *Sunstroke* wasn't built to stand up under such strain."

I listened; the strange creaking noise underfoot had been growing in intensity. Sweating, I started for the water myself. Then I stopped.

"What is it?" the captain whispered. "Idea?"

"Sorta kinda. I was just thinking what water means to a Martian, a highly civilized one like Didangul. It represents survival in essence. Water is one of the triple images in the Martian noun for life. It has the connotation of the ultimate in luxury, the reward of the rich, the reason for striving for worldly success. An aristocratic Martian scientist will consider any investigation but the question of the irrigation of their desert lands, as demeaning beyond all conception. I was wondering—"

"But you said they weren't thirsty enough!"

"Oh, Didangul isn't thirsty, all right. But water is something more than a physical need. It's an emotional, intellectual requirement. Especially water in their neighborhood that they aren't using. I wonder how much of a need it is! It was enough to make them dehydrate fifteen thousand living humans merely to get at the water imprisoned in their bodies. I'm going to try something."

CARELESSLY I walked to the chart table and poured myself a drink. I smacked my lips after I had finished and sighed happily. Then I strolled back to the enormous Martian, sloshing the water in the carafe. I held it up to him silently.

He shuddered and tried to straighten. Then painfully, almost pitifully, he strained both claws against the tight threads in the direction of the water bottle. The well-tended, pointed nails scraped horribly against the glass.

"Very fine water," I whistled. "Very wet. Moist. Very, very wet. Nice water to feel fine against your skin, Didangul. Cool and wet water to slide happily down your throat. You can have it, Didangul, to splash around in, to drink, to give you moist and lovely pleasure. What must we do to avert the explosion?"

His great green tail attempted to curl back upon his head. He opened his long jaws, closed them again. His eyes were fixed fiercely, unwinkingly upon the container I held just out of his reach.

He whistled a few bars, and I leaned forward intently. Just a meaningless babble of yearning—no recognizable words.

Wisnowski came in and stopped near the door as he grasped the scene. He was still wearing part of a space-suit.

I shook the carafe again, letting the water splash about inside. "Nice wet water for you, all moist and damp for you. How do we stop the shell?"

Another uncommunicative whistle, another convulsive wriggle. Didangul seemed to want that water more than I've ever seen any living thing want anything. "Only trouble," I said aloud, "is that his psychological block against divulging information which will prevent his escape seems as strong and maybe a little stronger than his desire."

"Lots of humans can be forced to give secondary info when the most brutal torture won't extort a particular secret," Wisnowski said suddenly. "Even a Martian has an unconscious. Try asking him something that doesn't seem so obviously important—ask him what kind of shell it is."

I brought the water bottle up to Didangul's reptilian snout. "Plentiful moisture," I trilled. "Delightful wetness. Just tell us how the shell works and you will bathe and drink deep. We don't want to know how to evade it—just its nature. Tell us its nature, Didangul, for this swirling water you see and may have. Why does it follow us? Why didn't it follow the lifeboat? All this wetness for you alone."

An awkward whistle. Then a few more, his whole being concentrated on the water bottle. "The shell—gravity—artificial gravi-

tation—no power source, no jets—just artificial, magnified attraction to—to neighboring body of greatest mass.” He halted, wheezed, writhed and went on. “—greatest mass moving at variable acceleration as all non-celestial bodies—lifeboat’s mass smaller than ship’s—let have water—let me—need it—need—”

I translated. “Does it help?”

“Yes!” Captain Scott said emphatically. “Artificially magnified gravitation! Must have been one of their last, desperate spurts of scientific development before the end. All we have to do is get a greater mass out of the ship than remains in it—leave, say, only the personnel, the hull and the radarito—attach our gyros in automatic operation to this greater mass and send it off in a different arc than the ship’s. Then, after the spacerip, we radarito a lunar base for help—”

“Excuse me sir,” Wisnowski broke in. “We couldn’t possibly weld it all together in time. And if we don’t weld, the individual pieces we accumulate will spread out in space as fast as they are pushed through the ports. The drive won’t affect the entire mass. It’ll only send the individual fragment it’s attached to in a different arc.”

I remembered the gadget that headquarters had cleared at the Martians’ request. The converter—neutronium! “They’ve been fiddling with it ever since the voyage started, captain! That’s the price—the gadget they were going to give us for their freedom. But it’s only one small converter. You’d need a skilled industrial mechanic to convert a sufficient quantity of ship’s mass into neutronium—”

The second officer had come up. “With your permission, Captain Scott, I believe I could handle it. I specialized in industrial naval techniques at the academy. Converters are my own potatoes.”

“Take over then. Requisition any of the crew to help as you see fit.”

The second officer barged out. I leaned a bit too close to Didangul. He seized the carafe. Captain Scott tore over and ripped it out of his claws.

“We’ll need all the mass we can spare, Mr. Butler. That water these lizards have been wallowing in will be going into the converter.” He chuckled. “Let them drink soup.”

Wisnowski made a wry face as the Martian drooped in a corner. “I feel sort of sorry for the guy. After all the grilling he’s

been through, the least we could do is let him wet his whistle.”

“Ship emergency,” the captain was declaring into the communicator panel. “Heads of departments will extend every cooperation to the second officer and see that he has all the men and materials he requires to adequately complete his task.

“All personnel whose work is no longer essential will report to the bridge immediately. The prisoners will be bound carefully and also brought up here. We are facing a spacerip, men. We don’t know exactly what its effects will be or whether our hull can withstand it. Our only hope for survival is to get everyone into the bridge which is in the exact center of the ship; this will provide a maximum of bulkhead armor.”

THREE hours later Cummings called abruptly, “Captain Scott, these beetles are trying to walk away with the grampus and the hundred switches!”

Three weary electricians stood near the quartermaster. “Orders,” said one of them laconically, brandishing an electronics wrench.

“Just a moment,” the captain hurried over. “We’ve got to set the best possible course, first. Uh—thirty-nine, five-eight, thirty.”

“Thirty-nine, five-eight, thirty,” Cummings repeated. “On arc, you danged bulksmiths!” He skipped off the control dais as the electricians began tearing the equipment out of the floor and ceiling.

The bridge was getting crowded with everybody from the mess detail, their hands still greasy with dishwater, to the sleepy dog watch. Jimmie Trokee came in and got the other two tightly bound Martians up against a wall with Didangul.

Rafferty and Goldfarb were howling about the loss of their chess-board. The creaking of the ship was now a definite whine as the bulkheads seemed to vibrate in place. I prayed that the second officer would get the necessary mass into the converters before the ship shook itself apart.

“Mr. Wisnowski,” the captain was yelling above the din of irritated mumbling as men shoved against each other. “Mr. Wisnowski, I hope you’re keeping a record of this in the rough log.”

“Sorry, sir,” Wisnowski called. “The rough log just went into the converter. And that’s the chart table going out now.”

Captain Scott stared after the two men pushing their way out through the crowd and shook his head. "Well, give orders then that the visiscreens are to be left in place. If we live through it, this may be man's only chance to describe a spacerip at short range."

Hmmm, I thought. That was so. I jostled through cursing spacemen and got my face up against the quivering screen. Captain Scott was already there. Together, we watched the huge, uneven mass which filled half the screen grow even larger.

"If that second officer doesn't hurry—" the captain began. "I haven't thanked you, as yet, for your assistance, Mr. Butler. I'll forward a complete report to Terran Army Command if and when we land. A complete report." Then he smiled at me. I didn't like that smile.

A terrific thudding boom from somewhere. A thick, palpitating blob of orange which was the ship's gyrosread drive appeared on the screen behind the tiny coruscating dot that signified neutronium. It arced away and past the proximity shell. Everyone stopped breathing.

Slowly, very slowly, one oddly outlined edge of the shell turned around. The entire evil contraption seemed to revolve on its axis. Then—I noticed it was growing smaller. It was pursuing the neutronium!

Feet pounded in the corridor outside as the second officer came in with the last of the engine room crew.

"Wish we had enough space-suits to go around," the captain said restlessly. "Of course, the Navy reinforced the *Sunstroke* to withstand anything short of direct hit on a vital spot with atomic channels. I'd take this ship into practically anything, even—"

Sound abruptly disappeared in the room. A tremendous orange glow spilled across the screen. It was followed by an expanding cone of the ugliest, deepest, most hopelessly depressing black the mind of man ever shudderingly refused to imagine.

I found my muscles were locked in place. I seemed to have gelled into a creature of no time, no movement and slow, impossibly tortured thought. Then my body slammed against the screen, whipped away from it.

Sound—horrible screaming sound as if the very universe was shrieking—battered my head with the insane force of a mallet in the hands of a lunatic as every electron in the ship fought to maintain its identity. I crawled abjectly into unconsciousness with a

last, frantic impression of men's bodies rolling off the wrinkled screen. The screen held that fantastically blinding spot of white light where space, ripped apart, was pathetically trying to roll back upon itself. Empty space, never meant to be opened. . . .

"Butler's all right," Wisnowski was yelling. My head was on the hard bump of his knee. The screens were hanging in dripping shards of plastic around the bridge. Men crawled to their feet, groaning. The floor had bellied up into an immense, irregular mound.

"Everyone's okay," Wisnowski said as he helped me to my feet. "Couple of broken bones and maybe some internal injuries, but nothing to cry about. Nobody killed. But the ship—the old man's keening over it. Second officer just came back and reported that not one square inch of the hull is left. The bridge and half the center level are intact—rest of the vessel is breathing vacuum."

"The radarito?"

"Oh, we got the auxiliaries functioning. They're raising a lunar base now. The spacerip would have attracted attention in any case. We're all set. Just a matter of time now, before the rescue party gets here."

I saw to my prisoners. They were dry, unhappy and a little bruised in their golden bonds. But they were in sound enough condition to be executed as soon as the formalities of trial were over. I was all set. I'd even won the approbation of a jet-happy naval character like Captain Scott.

Only I didn't figure just how much of his approbation I'd won. On his recommendation, Terran Army Command revoked my discharge when we reached earth. Yeah—revoked my discharge! They said I'd proved my value in handling the Martians too much for them to let me go until the trial was over. They said Captain Scott's recommendation showed I was far too useful, a man of far too high caliber. Spacewash!

That was five years ago. Didangul and his scaly friends were convicted all right, but they still have fifty-four of their sixty-one points of appeal to be considered. They're fighting for their lives with the best legal talent available—they're not so dumb themselves. I've been trying to figure—if seven points of appeal are turned down in five years, how long before fifty-one—

I had to go and be clever, I tell myself as I cry over the discharge they gave me on Mars hanging on the barracks wall. A discharge? A dud, brother, a dud.



A PROBLEM IN ASTROGATION

By MATT LEE

ED WILLIS stirred in the grip of his acceleration harness, shuddered, sighed and opened his eyes.

"What a breeze!" he exclaimed, then turned his head to the right to look at his older companion, who still lay limp in his harness. "Dr. Oliver—Jed—are you okay?" he called. Quickly he unstrapped himself, lifted his big body from the chair.

He went right on up toward the cabin ceiling, had to push with both hands against the roof to float back to his chair. By the time he was once more settled Dr. Oliver's eyes were open and regarding him with a trace of sardonic amusement.

"Well, we're in space and no doubt about it," said the scientist, carefully undoing his own straps. He scowled and shook his head. "But we shouldn't have blacked out on the takeoff. We had it figured—"

A thought seemed to strike him and, carefully, he switched on the video-screen and began checking his astrogational whereabouts.

"Something," he said, "is very haywire indeed. We'll have to wait fifteen minutes before I take another fix, but we're making almost ten times the speed we should be." He scowled at the video-screen. "Better make a check of the ship, Ed, and see if

we're all right. Maybe the video is out of whack."

Willis, glad of a chance to get into action, got busy. He was gone for some time—not that time meant much in space. When he returned Oliver was again taking a position check and muttering to himself. With eyebrows lifted, the scientist looked up at the pilot of the *ASTRONAUT*, first of Earth's space ships to take off.

"A section of plating was shaken loose by the shock of take-off," the pilot reported. "It covered the A-pile chamber directly. I managed to float a spare section over the spot."

"That must explain it," said Dr. Oliver gravely. "Cosmic rays working directly on the A-pile must have resulted in some isotopic reaction we were not able to figure on. We've been traveling several times faster than light."

Ed Willis turned pale. "What do we do now?" he asked. "Slow her down if we can?"

"If we can," said Oliver, "but not yet. We've got to return to Earth and check what really happened. Three times the speed of light!" He pursed his thin lips.

It was dark when Willis finally brought the *ASTRONAUT* onto the isolated Tennessee rocket field from where they had started.

Three Times Faster Than the Speed of Light!

THE field was still there, but, under the nose searchlight it appeared strange and lumpy. Familiar hangars and equipment were not in evidence and the unexpected irregularities of the terrain nearly caused them to do a ground loop. But they made it intact.

"Whew!" Willis said, unstrapping. "Terra firma!" Then his face took on sudden concern. "But what do you suppose is wrong with the field?"

"That," said Dr. Oliver concisely, "is what we must find out."

Perplexed, they walked through the moonlight. Where a modern four-lane macadam road had skirted the rim of the field now nothing but a rutted dirt wagon track was visible. There was no evidence of the scattering of houses, of shops, of bar-grills whose lights had been visible the last time they had been here after dark. Grimly they walked on toward Corsonville.

The sleepy little town seemed to have shrunk. Its sidewalks were not concrete but duckboard, its main street paved with nothing but dust. The men looked at one another, appalled. Then Dr. Oliver nodded toward a corner drugstore which, save for the fact that it was gaslit, looked much as it had on their last visit. He walked across to it, picked a newspaper from the little stack on the stand outside, held it close to the lighted window to read. Willis, following, looked over his shoulder.

"It's a gag!" exclaimed the pilot as his eyes took in the flowery old fashioned type and then the dateline at the top of the page. It read *The Corsonville Times*, June 22, 1894.

"No, Ed," the scientist said gently. "I'm afraid it isn't a gag. Just how it happened I don't know yet—but when that plate was shaken loose and our mixture became unstable we were speeded up so we went not through space but through time."

"A time machine!" muttered Willis. "Well, what do we do now?"

"I don't know," said Dr. Oliver thoughtfully. "As far as we know our position is unique—despite all the millions of humans who have dreamed of finding themselves in the past. We may be able to do ourselves and the world in which we so strangely find ourselves considerable good."

"What are you fellows selling?" said a new voice. Both men looked around to see a bespectacled little man in a white coat and apron regarding them curiously. From the

stains on his white jacket, he was evidently the druggist.

"We haven't decided yet," said Dr. Oliver, realizing at once that their space costumes were outlandish for the era and that only medicine men would be caught dead in anything so exotic. The druggist frowned.

"Well, mister, supposin' while you make up your mind, you fork over a dime for that paper you're holding. That's what it costs."

"Gladly," said the professor, putting a hand in his pocket and, pulling out a fistful of silver, he put a dime in the druggist's hand.

"Thank you, mister." The druggist nodded, then peered closely at the coin Dr. Oliver had given him. Then his voice rose to a pitch of fury. "Hey, you!" he cried. "Are you trying to take the bread out of an honest man's mouth by passing counterfeit money? Constable Wilkes, get over here quick!"

A burly policeman in the high helmet fashionable in that era collared them both and marched them down Main Street to an inconveniently nearby calaboose. There they were examined, first with curiosity for the strangeness of their garb, then with anger; and the contents of their pockets were examined and every cent of money they carried was pronounced bogus.

The sun was still low in the east through their well barred window when, amid a great clanking of locks, an immense man with a cable-thick gold watch-chain spanning his brocaded vest and a bristling pair of waxed mustachios appeared in front of their cell.

"I'm Colonel Corson," he said in a deep ringing voice that reverberated off the walls. "Colonel Harold Corson, Mayor of Corsonville."

"Dr. Oliver—Dr. Jed Oliver," said the scientist, going to the cell door. He nodded toward Ed. "And this is Mr. Willis, my pilot. I trust, Colonel, that you will be able to effect our release from this durance. We had no idea our money was counterfeit."

"It might be arranged," said the colonel thoughtfully, his voice dropping to a mere roar. "Tell me, gentlemen—does that strange object I saw reposing on the meadows while riding into town belong to you?"

"You saw the ASTRONAUT?" said Willis. Colonel Corson nodded.

"I did. Never saw anything like it. When I heard about you gentlemen I realized it

must be yours. These thickheads here in the station are unable to understand your story. But I looked at that money of yours. It looks real enough to me—even if the dates are all wrong."

"The dates are all right," said Dr. Oliver. "It's just that—" He launched into an account of what had happened, keeping it as simple as possible.

"Amazing!" said the Colonel. He shook his head slowly and stroked his beard. "You gentlemen may be of tremendous use, of course, if your story is true. You'll know everything that is to happen for some years to come."

"Sixty-two," said Dr. Oliver. "You can safely bet on McKinley for President in eighteen ninety-two. Two years later we'll fight a war with Spain over Cuba and win it. A man named Theodore Roosevelt—"

"Amazing," repeated the Colonel. He held up a hand to stop the outburst. "But I was hoping you could give me a little more personal advice. My horse Barley Water is racing Luke Merton's Sugar Plum in a match race this afternoon. We think a lot of our horseflesh here and the winning owner is going to stand a fine chance of going to Congress in the next election. Perhaps you can give me a line on the results."

Willis looked at the doctor helplessly, but the scientist nodded.

"While waiting around before we could take off," he explained, "I did considerable digging into local history. Your horse, Colonel, came in—that is it will come in—ahead by a nose."

"Thank you, sir. That's all I wanted to know," said the Colonel. He stood by while they were released, saw to it that their belongings were returned, then took them to his carriage. They drove past the ASTRONAUT to a lush gingerbread mansion in the country.

"Pretty soft," said Ed Willis when they had a moment alone.

"It's a good thing I read old newspapers,"

said the scientist smugly. "It's also a good thing the Colonel didn't ask me if he won the next Congressional election. Luke Merton won by a landslide."

"How come?" Willis wanted to know. The scientist shrugged.

"Something came up about falsifying records," said Dr. Oliver. "The *Times* was understandably reticent about it. The Colonel owns the sheet."

"I get it," said Willis. "What a picture!"

The picture, however, turned black as ink three hours later as they sat in the Colonel's carriage near the finish line and watched Luke Merton's Sugar Plum, a great roan gelding, flash past Barley Water in a driving finish to win the race. Colonel Corson let out a bellow that all but stripped the surrounding trees of their foliage.

"Scoundrels!" he roared. "Fakers! I'm going to lock you up until you rot."

Ed Willis shoved him violently from the driver's seat to the turf, grabbed the reins and applied the whip to the horses.

They made the ASTRONAUT by the skin of their teeth. The great reinforced airlock door swung shut just in time to foil their pursuers. Willis, once he had the motors going, allowed the jets to spurt flame mildly, driving them back to a safe distance. Before taking off he turned to the scientist.

"You say the Colonel lost the election for falsifying records?" he asked. Dr. Oliver nodded.

"And he owns the only local paper?"

"That's right," said the older man.

"Something tells me the record he falsified was the result of that race we just saw," said the pilot.

"Something tells me that's the answer," said Dr. Oliver. "There were only a few people present, most of them friends of the Colonel."

"Where to, professor?" the pilot inquired.

"Make it Mars," said Dr. Oliver. "We'll be a lot safer there than on Earth."

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NEXT ISSUE

AHEAD OF HIS TIME

A Brilliant Complete Novelet

By RAY CUMMINGS

PLUS MANY OTHER UNUSUAL STORIES!

When the Children Set the Robot Free, the



He blasted at the figure again and

THE WORLD

A Complete Fantastic Novelet

CHAPTER I

Introducing Wulkins

MOLLY DENHAM was scornful and made no attempt to hide her sentiments.

"Antique shops!" she exclaimed. "What do children see in them?"

"Incredible things!" Ralph Denham re-

plied, winking at his son and giving his small daughter's hand a squeeze. "The past through rose-colored glasses and—thingummies!"

Molly Denham smiled mischievously. Her bamboo-colored hair whipped by the wind, her hat tilted at a rakish angle, she moved up close to her husband and shook a reproving finger at his reflection in the window.

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OF WULKINS

by FRANK BELKNAP LONG

"Conspiring again and leaving me out of it," she complained. "Just you three. Winking and whispering together. Ye canna do that, hddie."

"For the last time," Denham said. "Will you put another nickel in Johnny's sun glasses before the polarization clicks off?"

"People who like gadgets should carry their own change," Molly challenged. "Rent-

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window. The shatterproof plastiglass sagged under his weight, and bounced him back to his feet on the long boardwalk with scant respect for his dignity.

Denham turned slowly, a big man with keen gray eyes and gray-streaked hair—a man well past his first youth, but happy in his marriage, happy in his work.

Denham liked to think of himself as an easy-going family man—an anchor of security to his children, a gay sweetheart to his wife. But sometimes it was a little difficult, especially when the woman he'd married became a radiant water sprite with the puckish impulses of a wilful child.

He suddenly realized that his daughter was plucking at his sleeve. "Daddy, look! It's a *rabbit*! One of the olden kind—a little one. I bet you could buy him cheap, daddy. He's all rusty."

"She means a robot!" Johnny Denham said.

Denham avoided looking at his daughter. There was no need for him to look at her. He'd gotten over his surprise long ago. Betty Anne Denham was big for her age, saucer-eyed and insatiably curious—but what child of seven wasn't?

"Tell her you like stores like that too, Pop. G'wan, tell her! *Tell her!* She thinks it's just me."

Molly Denham grimaced and spoke directly to her son. "Don't take off your hat, Johnny. Your father's had a sunstroke. There are dozens of stores like that on Maiden Row. But we came to the beach to get away from cobwebs and musty antiques."

"Aw, Pop knows what he's doing," Johnny said.

GOOD lad, Denham thought. If he went away and never came back, his children would remember him and stand up for him. They'd—

"You could buy it *cheap*, daddy," Betty Anne insisted.

Denham turned with a shrug and stared into the antique shop window at the musty relics which time's relentless tides had washed up from a past that was best forgotten. To an imaginative man like Denham, a teacher of advanced semantics, the last years of the Twentieth Century loomed through the mists of time with all the fascination of a vast dust bin infested with black widow spiders.

Nightmarish was the word for it. From

behind the plastiglass there stared out at Denham a goggle-eyed horror which sent a chill coursing up his spine. Robot manufacturers had experimented with dozens of different models between 1985 and 2025, but rust-green Mr. Small was certainly an odd one!

The robot was big-little and ugly, with a perfectly square head, bulging sea-green eyes and a globular body case. Big-little in that it conveyed a disturbing impression of hugeness despite its size.

Just why that should be Denham couldn't imagine. But he came to a sudden decision. He knew that if Betty Anne turned sulky he'd have to buy her candies and dolls and everything nice—every day for a week. Not only would the robot save him money, it would amuse his guests when his occasional week-end parties came a cropper over an eccentric professor's collection of Duke Ellington hot jazz recordings, not to mention his more priceless Louis Armstrongs.

With this thought in mind he took hold of his daughter's hand again. "It won't cost us anything to ask the price of that robot!" he whispered. "Come on, honeybunch!"

The shopkeeper flashed one brief glance at Sally and shook his head. "You wouldn't want it," he said. "I put it in the window solely as an—*an eye-catcher*. If I sold it to you, you'd come back and assassinate me. As you can see, it's clogged with rust inside and out. There's nothing inside its brain case but a lot of charred wires!"

The shopkeeper rapped the robot's ugly head sharply as he spoke, eliciting a hollow, jangling sound.

"Don't let him do that to you," Molly whispered. "What he doesn't know won't hurt him."

The shopkeeper was a gaunt, thin-lipped man with hair so sparse that it enmeshed the shiny contours of his skull like a cobweb. Denham momentarily expected that the spider which had spun the web would pop into view, eliciting a scream from Betty Anne.

He looked the shopkeeper straight in the eye. "Where did you get it?" he demanded.

"Ah, that's a story in itself. The man was a derelict—thin as a scarecrow. I felt sorry for him!"

"I see," Denham said, skeptically. "If you bought that little monstrosity from a seedy looking bum, you must have wanted it pretty badly!"

"No, I didn't," the shopkeeper protested, and there was a ring of sincerity in his voice. "But I couldn't help it—I felt sorry for the man! He—he told me he found it in the woods, covered with leaves, half buried in the earth!"

"Well, anyway, my daughter wants it!" Denham was insistent. "How much?"

The shopkeeper looked shocked. "But it isn't a toy! A child wouldn't—"

"A child would! How much?"

"Sev—six dollars!" the shopkeeper stammered, his eyes on Molly's accusing face.

Out in the warm, bright sunlight again, walking with his arm linked with Molly's, Denham was seized with misgivings. The robot dangled between his brats like a little, blue-green monkey, its segmented metal feet barely grazing the boardwalk.

It was easy to see that the children were in a world of their own now. As they walked on ahead of their parents, supporting the little monstrosity by its elbows, they kept grinning and whispering together.

Denham felt like an outsider, and a little out of humor with his wife. She had brought it on herself by accusing him of conspiring with his children. Children never conspired with adults except when they wanted something. When they were accused of doing so they wriggled out from under, repudiating the entire adult world with a vehemence which could sunder a man from his offspring until—they needed him again.

IT HAPPENED more quickly than Denham could have anticipated. Betty Anne shivered and came to an abrupt halt, as though she'd been hit by an idea that was causing her acute anguish.

"Daddy, could we take Wulkins for a ride on the roller coaster? Could we, Daddy?"

"Yeah, why not, Pop?" Johnny Denham chimed in, his tousled head jogging in the sunlight as only the head of an eight-year-old boy could jog when excitement swirled through it.

Wulkins! So the secret whispering had borne fruit, in the deep dark of a world no adult could enter. Denham was sure there were names for everything under the sun in that world. But why Wulkins? Why not Scheherazade? Oh, well—Wulkins.

Five minutes later Denham sat beside his wife in the back seat of a roller coaster, staring at the ugly head of the robot. Betty Anne and Johnny occupied the front seat,

with Wulkins wedged securely between them on red plastic cushions that brought his entire brain case into view. Two round human heads flanking a square metal head for which Denham felt no affection.

The vista which stretched around them was one of enchantment. Above a cluster of carnival-bright concessions and fine-spun aerial tracteries loomed the immense, stationary bulk of the roller coaster, its ascending rails enveloped in shafts of electric-blue magnetic energy. Soemthing close to pure magic had been instilled into the scene by the architects who had designed the amusement park and the individual concessions.

But it was a magic which made Denham distinctly uneasy, as though some elusive, hard-to-pin-down aspect of danger had been added to the scheme without impairing its mechanical stability.

"Here we go, Pop!" Johnny yelled.

The car started off in a sinuous glide and picked up speed rapidly. Before Denham could get a firm grip on the sides of the car they were ascending through a dark tunnel at an almost perpendicular angle.

"We'll die a thousand deaths!" Molly whispered. "It gets progressively worse. They want to be orphans—just to see how it feels to cry their hearts out."

They were almost at the summit of the first loop, out in the sunlight again, when Betty Anne twisted about to stare back at her parents, the waist strap which held her to her seat giving her a feeling of superiority which she made no effect to conceal.

"You're not strapped in, Daddy!" she observed. "Aren't you nervous?"

"We'll talk about it in the ambulance," Denham gritted. "Why don't you ask Wulkins if he feels nervous? He— Ullp! Here it comes!"

The car seemed to hang for an instant motionless in the middle of the sky, a gleaming spiral of blackness falling away beneath it.

Then—it started down.

At first Denham felt nothing at all. Then something like a little breeze came into existence at the base of his spine and blew up through him.

He experienced a sudden, onrushing giddiness. The breeze became a hurricane, and the dizziness twisted his brain around so that he seemed to be moving back up the gleaming rails in the wake of the plunging car.

Suddenly—he realized that the front seat was slipping away from him. Not parting from the car, but unmistakably lengthening as it plunged downward with ever increasing velocity. It was as though—the car were stretching like an elastic band, carrying the children and the robot down the rails much faster than it was carrying him.

It wasn't an illusion spawned by the steepness of the drop. It wasn't, it wasn't—it *couldn't be!* He was dizzy, but not *that* dizzy. He wasn't deceived for one second. Despite his terror, despite the vertigo which plucked and tore at him, he could see that the children were leaving him.

Their heads were getting smaller. The robot's head too—dwindling as the car lengthened. The entire car was rocking furiously from side to side, its velocity threatening to carry it from the rails. But the lengthening was a thing apart.

As Denham tightened his grip on the sides of the car something like a wrinkled film of water seemed to float between himself and his dwindling children. For an instant the sheet remained translucent, glimmering in the sunlight above a converging blur of rails.

Then shapes loomed out of it—square-headed, metallic and hideous. The shapes resembled Wulkins but—were much larger. Enormous! Behind them he could see trees now, growing out of the water and something that looked like a bald-headed vulture sweeping low above the water.

He tried to cry out, but the shapes wouldn't let him. They were reaching out toward him with their segmented metal hands spread wide, and something about the hands constricted Denham's throat muscles, so that he couldn't utter a sound.

CHAPTER II

Terror Rides a Roller Coaster

THE NEXT instant the weird glimmering was gone. The car had reached the bottom of the spiral and was ascending again. And directly in front of Denham, so close he could have reached out and touched them, bobbed two small heads, dark against the clear, bright sky.

The car had contracted and the children had come back again! All in the length of

a heartbeat—though Denham's heart had almost ceased to beat. It began to beat again as he stared, in great, tumultuous contractions that brought an ache to his throat.

The same instant there was a flurry of movement in the seat ahead, and Johnny's excited face popped into view.

"Gee, Pop, that was terrific! What made the light?"

"You—you saw the light?" Denham said, and choked.

Betty Anne squirmed about in her seat. "It got bright," she confirmed, breathlessly. "It got awful bright. Daddy. It got brighter faster when we went as fast as anything."

"Why didn't we turn upside down, Pop?" Johnny exclaimed. "If I put a train on a track standing straight up, it would fall off backwards, wouldn't it?"

"Not—if you stretched it!" Denham muttered.

It wasn't what he'd meant to say. On a roller coaster the impetus acted as a brake, gluing the car to the rails. Friction. It wasn't the steepness of the drop that had—"

"Daddy! Wulkin's waking up!"

Denham stiffened, a cold chill darting up his spine. The robot had turned its head and was staring at Johnny, its body case vibrating like a tuning fork!

Molly screamed. The car had reached the crest of the spiral and was starting down again.

The children went further this time and there was a frantic bobbing about that made Denham think of dead autumn leaves being carried by chill gusts into a city of dreadful night.

But there was no city beneath him. Merely a shifting landscape wrapped in filmy light. He saw more trees, and something huge and hideous with gauzy wings he couldn't quite make out.

As the car started up again a change came upon Denham. His eyes narrowed and his jaw tightened in savage fury. Leaning forward, he wrapped his arms about the robot and jerked it straight back into the seat beside him, wrenching another scream from Molly.

Call it desperation. Call it courage, or the fiercely protective instincts of a parent at bay. Whatever it was, Denham had been quick to sense that the robot was malign, something unnatural from a plane of existence alien to humanity which had reached out to enmesh his children—and was still

reaching out.

Very deliberately Denham drew the little horror across his knees and turned it over on its back. Its movements were chillingly spiderlike. Its bulbous eyes twitched and its arms tried to wrap themselves around Denham as he struggled with it.

Denham felt the impact of cold, merciless metal, bruising his flesh, creeping upward toward his throat. But luckily the plates which protected the robot's vitals had worked a little loose.

Jabbing at the metal arms with his elbow, Denham wedged the fingers of his right hand beneath one of the plates, and pried it completely loose. Deep within him there squirmed a cold revulsion and a growing terror. But relentlessly he thrust his hand into a narrow opening in the robot's back, and grasped a tangle of quivering wires, cold to the touch.

Furiously Denham tugged at the wires. He was still tugging when the car reached the top of the loop and started down again. But the robot had ceased to quiver.

Five minutes later Denham stood facing his daughter on a firm plastiglass platform, the robot lying in a crumpled heap at his feet.

"Daddy, what did you do him?" Betty Anne shrieked. "He—he's dead. You killed him! You did! You *did*! I heard him scream."

MOLLY grabbed Betty Anne by the shoulder, and shook her vigorously. "He didn't make any noise—not a sound. Your father should have flung that horrible little monster out of the car. Now we'll have to use an ax on him."

Denham stood it as long as he could. Then he stepped forward and gave his daughter a resounding whack on her little behind.

"No recriminations, honeybunch," he said. "Your mother's right. I did what I thought was best. You'll just have to take my word for it because—I don't intend to discuss it!"

"Not even when we get home, Daddy?" Betty Anne said, oddly mollified by her father's forbearance. Not that he'd ever used a hairbrush but—there could always be a first time!

"Not until—Hades freezes over!" Denham said, firmly. "Perhaps not even then. So you can wipe that wheedling smirk off your face. It won't get you anywhere."

But Denham had spoken rashly, failing

to take into consideration the tyranny which his daughter was capable of wielding. He discovered his mistake the following afternoon, when the children's hour brought her into his book-walled study and straight to the arm of his chair with a bad case of sulks.

Logs were crackling in the fireplace, Molly was out in the kitchen preparing dinner and late autumn sunlight was slanting in through the tall, antique windows at Denham's back.

Denham had made a deliberate effort to recapture for home consumption the serene, rose-petaled atmosphere of the middle Nineteenth century, which hadn't been half as feverish as the Twentieth.

Not only did he enjoy lecturing about the past, he liked to surround himself with objects from the past—a stuffed owl under glass, a china closet filled with rare porcelain bric-a-brac, a tasteful selection of Currier and Ives prints.

Beautiful, serene, decorative objects and not ugly ones like—hold on, he'd best stop right there!

It was Betty Anne who did the reminding. "You're not really going to destroy Wulkins, are you, Daddy?"

Denham was nettled. He sat up straight in his chair, flushing a little and glaring at his daughter.

"Look, honeybunch," he said, slowly. "If I tell you all I know and suspect about Wulkins, will you keep out of my hair?"

"Daddy, couldn't we keep him? He's all broken up inside now, isn't he? We could make believe he's still alive—"

"Very well!" Denham capitulated. "I may as well tell you for you'd go right on talking about him anyway. But maybe you won't ask so many questions if I tell you."

"All right, Daddy. Tell me."

Denham ran his fingers through his hair. He reached for his pipe. A moment later he was squinting at his daughter through a haze of tobacco smoke. He knew that the smoke was bad for her. He wished she'd realize that and go away.

When she nestled closer to him he set the pipe down despairfully and put his arms about her.

"When we bought him he was all clogged with rust, remember? He wasn't vibrating. But that roller coaster ride—the jogging—must have started him up."

"Uh-huh!"

"Now don't get excited," Denham warned. "It isn't anything that will break out on you

like a rash if you can't understand it. Here's what I think happened. When Wulkins started to vibrate he warped space in all directions. Very strongly in front of him and a little on both sides of him. De Sitter's soap bubble universe."

Denham scowled, rubbed his chin. "Physicists claim there are tensions which simply can't remain in ordinary space. They shoot right out of our space like—a cork from a champagne bottle. Something outside of our world creates them and, when they get into our world, they can't stay there."

Denham reached for his pipe again. "But if something came into our world from outside and built up tensions in itself, it could pop right back again, carrying a part of our world with it—perhaps."

BETTY ANNE stirred impatiently on her father's knee. "Are you talking to me, Daddy?"

"No!" Denham grunted. "Just thinking out loud. Here's how I'd tell it to you. The world's where we are. But there's another place—where we're not. Maybe a lot of other places, all pressed together close to where we are, with just a thin film of emptiness separating them. People live there too maybe, and, for all we know, they may be trying to come where we are. Sick to come where we are."

"And they can't?"

"So far as we know they've never been able to," Denham told her. "If they came at all, it would have to be in something pretty complicated. A machine of some sort. You see, it's a little like traveling into a far country at enormous speed. You've seen trains. They're complicated."

"Go on, Daddy!"

"Well—*Wulkins* is a machine and he's complicated. You don't know how complicated because you've never looked inside him. But you can take my word for it, he's as complex as you are."

"Complicated means all mixed up, doesn't it, Daddy?"

"That's right. Sometimes it means mixed up in a rather simple way, and then you've really got something to worry about. But *Wulkins* is complicated in a dozen ways. Looking inside him is like looking into a big, bare room and hearing a lot of noises below the threshold of sound, and seeing pictures on the wall that are there one minute and gone the next."

Denham's head had begun to ache. He put a hand to his brow and withdrew it quickly, as though he didn't really want to find out if he was running a fever.

"It's even worse than that. You can hear sounds outside the room, if you keep on staring and listening. And you don't need earphones. You can see colors, too, that never were on sea or land."

"Go on, Daddy!"

"Well, maybe the people couldn't come themselves. So they sent *Wulkins* to see what he could see. A dimension-traveling robot. And maybe he got clogged with rust before he could return to his world with samples of our world. Little things his makers may have asked him to put into his knapsack, an old black hat, a peppermint stick, a tropical butterfly."

Denham smiled thinly at his daughter. "Or bigger things he'd have to *vibrate* back, like a little girl who was born curious and likes to torment older people for no reason at all. Or maybe she has a reason those other people would like to ask her about."

Betty Anne looked genuinely frightened. Denham said hastily: "Don't think it doesn't scare *me*! But it's tremendously important too! So important a delegation of pompous screwballs—" Denham grimaced—"world famous scientists to you, *honeybunch*—are coming to your father's house just to look at *Wulkins*."

"Unh—they are?"

"Tomorrow, *honeybunch*! Now do you understand why I can't let you play with him?"

Betty Anne screwed up her face. "Well, if you don't want me to, Daddy, I won't!"

CHAPTER III

The Small Tinkerers

SEVERAL hours later two small, pajama-clad figures moved cautiously down the central stairway of the Denhams' house. One of the figures was Betty Anne, her hair braided for the night. The other was her brother, whose manner was that of a sure-footed conspirator who had taken great pains to dramatize himself.

Johnny's expression was Machiavellian and he spoke with an air of mysterious au-

thority, as though he were addressing not only his sister but the skulking shadows as well.

"Know what I'm going to do when I fix Wulkins up?" he whispered.

"No, what?"

"Build a peep show in Freddy Gilroy's backyard and fix it so Wulkins can't get out. We'll drill a hole in a board and watch him trying to get out like we did with the snapping turtle!"

Betty Anne looked scared. "Freddy nearly got his hand bitten off," she whispered. "And Daddy was awful mad. You'll be good and sorry if you do that to Wulkins."

"Aw, Pop never stays mad at me," Johnny told her. "I know how to handle him."

"I wish I did."

There was a moment of silence. Then Johnny said proudly: "I know how to handle tools, too. I can fix anything, if I try hard enough. Pop told me I looked like a little grease monkey the day I was born."

Betty Anne came to an abrupt halt, her hand on the banister. "When did he tell you? The day you was born?"

"Don't be a dope! How could a baby understand a thing like that?"

"What's a grease monkey, Johnny?" Betty Anne asked, casting a swift glance back up the stairs.

"A mechanic, you dope! Pipe down, willya? You want him to hear us?"

The children were at the foot of the stairs now, tiptoeing through shadows toward the rear of the house, Johnny moved a little faster than his sister, his eyes shining with anticipation.

"Hurry up!" he urged. "What's the matter? Afraid?"

"No. But I just remembered something. You can't reach the light in the cellar. You're not tall enough."

"So what?" Johnny whispered. "I'll climb up on the workbench."

"We'll be all alone with Wulkins in the dark," Betty Anne exclaimed, a catch in her throat. "If I was a scarecat, I'd be afraid. But I'm not."

"You are too," Johnny said. "Don't fool yourself."

There was a brief pause at the head of the cellar stairs, punctuated by an odd silence. Then down the stairs in total blackness the children crept. Down the stairs and across the cellar with their hearts fluttering wildly until—

"Oh, Johnny, I'm scared. Johnny, where are you?"

Instantly the light came on, revealing Johnny crouching on the workbench, his eyes bright with alarm.

The alarm disappeared when he saw that his sister was unharmed. The robot was standing utterly motionless a foot from Betty Anne's outstretched hand, its long arms dangling, its globular body box half in shadows.

"Daddy left him standing up," Betty Anne said, as though aware of her brother's thoughts. "Didn't he tell you?"

"Naw!" Johnny muttered. "He said if he caught me down here he'd—" Johnny colored to the roots of his hair. "Well, what are we waiting for? Hand me that screw-driver."

Tinkering is a specialized art. It is much more than that—it is an exact science. But every science, every art, no matter how specialized, has its mysterious short cuts. When the tinkerer is a child, soft spots occasionally open up in the hard mechanical cement which welds theory to practise.

For a child does not conform to any pattern in his tinkering. He ignores all the rules and relies on perserverence, curiosity and a semi-mystical legerdemain which has been known to empty orchards and whisk the frosting off cakes in a time interval too brief to be measured by the instruments of human science.

There is a right way of tackling every problem and there is a wrong way. But there is also a way which is neither right nor wrong, but just—a way.

With Johnny it was simply a matter of *knowing* he could get Wulkins running again, if he tried hard enough. There was no need for him to go before a delegation of world-famous scientists and justify his faith in himself. His confidence was boundless and completely beyond the reach of adult skepticism.

After fifteen minutes of tinkering the workbench was smeared with grease and bright with the tools which Johnny had used and discarded. But he wasn't discouraged—not by a long sight.

Wulkins was beginning to shine. Most of the rust had been removed by Betty Anne, who stood beside her brother with a bottle of metal polish in her hand. But Johnny had eyes only for the glitter of intricate mechanical parts. He was using his brain and his

hands, all his skill, in a way that sent a surge of confidence spinning through him.

"Stop jarring him, Betty Anne!" he protested. "You've polished him enough. Hey, cut it out!"

He whipped his hand from the robot's vitals as he spoke, a gleaming wire-cutter twisting in his clasp. "You want me to cut myself? I can't work on him unless you stop polishing him. What's the big idea?"

"You want him to shine, don't you?" Betty Anne asked.

Johnny started to reply. He got out a single word, a clearly articulated "Aw—" Then—his speech congealed.

Wulkins had turned his head and was looking at Betty Anne. But he didn't reach for Betty Anne. He reached for Johnny. His segmented metal hand shot out and fastened on Johnny's arm before Johnny could leap back.

Betty Anne squealed with alarm and retreated into the middle of the cellar, her eyes darting to Johnny's face.

The robot had clamped its other hand over Johnny's mouth, so that he couldn't scream. All she could see was the upper half of her brother's distorted face.

There was no hand over Betty Anne's mouth, but for an instant she remained as silent as Johnny. The floor spun under her, and her head whirled faster than the floor. The workbench whirled too, and the tools and Johnny.

SUDDENLY she was screaming, at the top of her lungs. But the robot paid no attention to her. Instead it fastened its bulbous eyes on Johnny and began to tug at his hair. It seemed amazed because—Johnny was Johnny! It grabbed one of Johnny's hands and turned it over and over, as though it had never seen a human hand before.

It tweaked Johnny's nose, tugged at his ear. Betty Anne stopping screaming suddenly, feeling all cold and ashamed inside because she couldn't do anything to keep the robot from treating Johnny like a—a limp rag doll.

The robot wasn't very rough with Johnny. But she didn't like it, she couldn't stand it, and she started to scream again.

She was still screaming when the robot shifted Johnny around until just his head emerged from under one stiff metal arm and started toward her across the floor. . . .

Molly realized that the stars were changing

before her husband did. It was like awakening in the still dark, and reaching out for something that wasn't there—a child's crumpled doll, or a warm little hand in a cot where a child's body had lain.

There was something in the room that wasn't right. It was nothing very tangible, nothing that could be seen. But it was there and she could sense it. Swiftly she got out of bed, threw a shawl about her shivering shoulders and darted to the window.

For an instant she stared out with her face pressed to the pane, her thoughts in a turmoil.

The stars *were* different! Beyond the black boughs which interlaced in the moonlight a yard from her face the far-flung splendor of the night sky had dwindled to a pallid glimmering. There was no Milky Way, no Great Dipper. Nothing but a sprinkling of very distant stars with a faint nebulosity behind them.

The moon had dwindled too. It was not only smaller, but it had a dull, coppery sheen, as though it were reflecting the light of a dying sun in a universe that had passed away.

Molly clenched her hands swiftly, utter horror in her stare. There's got to be *some* explanation, she thought.

Suddenly her eyes widened and her hand went to her throat. Out of the house in the moonlight and across the lawn below there strode an enormous shadow. The shadow was angular, grotesque, and it moved with a convulsive trembling of its entire bulk.

As Molly stared she saw that there were two smaller shadows attached to it. The small shadows seemed to jut out from it and to move with it across the lawn. But the smaller shadows were also in violent motion, as though they were trying desperately to break loose from the larger shadow.

And then Molly saw what had cast the shadow! It must have been clumping toward the road at the very edge of the lawn, because when it came into view the moonlight struck down so sharply against it that it stood out instantly in all of its angular ugliness.

It was a robot! But not the hideous little robot her husband had refused to destroy. No! A colossal shape of metal, eight feet tall, its huge gleaming arms wrapped around two small, struggling human forms.

"Johnny—Betty Anne!" Molly screamed the names of her children as she rushed back across the room to her husband's side. It

was a stricken cry, but it was also a cry of protest and fierce defiance.

She ripped the bedclothes from Denham, gripped his arm and gave it a furious wrench. "Ralph—Ralph! Wake up—get up! The children!"

Denham was out of bed so quickly his features had a tautly masklike look, as though his reflexes had brought him to his feet while his brain was still asleep. But the queer thing about it was that he seemed to know that something horrible was taking place.

At first Molly had screamed in sheer panic and then at her husband to wake him. But now she spoke quietly, as she usually did when life turned cruel and ugly, tapping her reserves of strength.

"Go to the window and look out. Hurry, darling!"

When Denham reached the window the robot was disappearing into a weaving blur of vegetation at the edge of the lawn. But he caught one brief glimpse of the metal giant, a glimpse which galvanized him into instant action.

HE STARTED toward the clothes closet, then swung about, and ripped his dressing gown from the foot of the bed. He wrapped it around himself and sat down on the edge of the bed. Few men could have drawn on their shoes in exactly eight seconds. But Denham did it.

Beads of sweat were collecting on his forehead when he said: "I'm going after them. It's Wulkins! There's been some sort of dimension shift and Wulkins has grown larger. He must have vibrated himself back into his world, and the cottage with him."

"You're not going alone," Molly said, thrusting her husband's trousers into his lap. "Put those on. It won't take a second. You can't run in that dressing gown. Anything else you want? Is there?"

"Get me a flashlight and an atomatic pistol. Downstairs in my desk!"

"I said I was going with you."

Denham sprang up. "All right, all right! I'll get the atomatic. You get something on you."

When Denham and Molly emerged from the house, the night had taken on an alien aspect. Before them the lawn was a shining strip which stretched in a straight line to a quivering edge of darkness which seemed to recede as they plunged toward it.

In a moment they had crossed the lawn and

were racing along an unfamiliar road beneath a canopy of heavily-scented vegetation. On both sides of them towered enormous trees, black against the pallid sky. They were different from any trees Molly had ever seen. Their boles glistened in the moonlight, and their branches seemed to tear and pluck at the night sky like the claws of rearing beasts.

The edge of darkness had moved on ahead of them and was still dividing the landscape, so that they seemed to be moving toward an ink-black, impenetrable void which had swallowed up everything in their path.

No, not quite everything. In the sheer walled immensity of the blackness little glints kept appearing and vanishing, as though a few startled fireflies had become enmeshed in it and were trying to get out.

It was Denham who saw something beside the glints. Perhaps because he was thirty feet ahead of Molly and the edge of darkness had receded further for him. But it may have been something else, a keener vision, or the courage to believe what he saw.

Not that Molly lacked courage, but there were times when it slipped away from her while fear drilled into the back of her mind.

As she ran she heard her husband shouting, "Molly! There's something moving right up ahead—something bright!"

But though the words brought a catch to her throat she saw only the darkness, just the trees and the darkness stabbing down. Her heels lifted queerly as she ran and her hands were clenched so tightly it seemed her fingers must crack.

Then, suddenly, the edge of darkness seemed to dissolve, to float away, and she saw a thick clump of shrubbery bisecting the shadows at the edge of the road. Directly in front of the thicket the road turned sharply, circling out to sweep on past it.

Denham had stopped running. He was gripping the atomatic pistol firmly, and advancing on the thicket with his shoulders hunched.

He called out: "Molly, turn on the flash. Keep it trained on that bush. You hear? On the bush! But try to sweep it past me."

For an instant Molly remained utterly rigid, the flash a lump of ice against her palm. Then, with a shudder, she clicked it on. As she did so a child's shrill scream sliced through the night.

"Run, Betty, run! Quick, before he catches you!"

Out of the thicket popped Betty Anne's

small figure, her eyes dark pools of terror. She stood for an instant blinking in the beam, her elbows pressed to her side.

Then with a shrill she ran straight toward Molly, ignoring her father's intervening bulk. The next instant there was a straining tightness about Molly's neck, and a wet, cold cheek brushed her lips. As though from a great distance she heard her husband shout:

"He's still got Johnny! I'm going in after him!"

THEN SHE heard another voice, shriller, edged with defiance: "He hasn't got me, Pop. I broke loose. But I—I can't get past him."

Molly leaped up, pushed Betty Anne around in back of her, and trained the flash on the thicket again. It was not only terror she felt, but shame, that she could have forgotten even for an instant that she had a son. She hadn't really forgotten, not deep in her mind, but her relief at finding Betty Anne in her arms had spilled over into the warm, bright little compartment reserved for her son. Now that compartment was as cold as ice.

From the thicket there was a scrambling sound. Then the boughs parted, and Johnny sprang into view, his terrified face twisting in the beam. His shoulders jerked, and there was a fright upon him so intense as to seem unnatural in a child.

Before Denham could move the robot parted the bushes directly behind his son with a single sweep of its long arms, as though it were stepping out from an annoying tangle of cobwebs.

It moved so swiftly it was towering over Johnny before Denham could scream a warning, its gleaming arms upraised. But some instinct warned Johnny that he was in mortal danger.

With a shriek, he swerved quickly to one side, pivoted about and raced toward his parents along the edge of the beam. Denham held his breath until Johnny was almost at his side.

Then the automatic pistol jerked in his hand, erupting in dull flame. The flash of light was accompanied by a harsh, metallic splintering, and a swirl of smoke which blotted the robot from view.

When the smoke cleared the robot was advancing on Denham in long, steady strides, its ponderous footsteps shaking the road. The

blast had torn away half of its head, but it came on notwithstanding, its upraised right arm flailing the air like a gigantic mace.

Denham recoiled a step and took careful aim at the globular body case, his eyes so hot and dry they seemed to be burning holes in his flesh.

He was grateful for the beam which brought the monster into stark relief but the fact that Johnny stood at his side, facing the horror in defiance of Molly, who was screaming at him to come to her, unnerved him so that his hand shook.

"Careful, Pop!" Johnny warned.

Denham fought to control his voice. "It's either him or us. If he gets me, don't yell or go down on your knees. You'll be in trouble if you do."

"I'm not leaving you, Pop."

Denham was grateful for something that brought a sudden steadiness to his aim.

He felt rather than heard the blast which spouted, outward from his hand. He blasted again and again and again—exhausting the energy load. The ground seemed to spiral beneath him with the dancing flare, and the smoke which swirled about the robot was so dense that it blotted out the sky.

When the smoke cleared the robot was still advancing.

It was a twisted, smoking mass of wreckage, its head a charred shell spilling metal pipes that glowed white hot. The atomic charge had also turned it radioactive, so that it glowed in a more dangerous way over every inch of its body case.

Denham's throat was so dry that swallowing was a torture. He knew that the robot was a deadly danger now, walking or just standing. It was drenched with radiations which could destroy every red blood corpuscle in Johnny's body if it came a yard closer.

The robot was within twenty feet of Denham when it halted. Slowly its shattered bulk began to sway, back and forth, back and forth, like an immense shuttlecock balanced on a wire. Then, just as slowly, it began to move backwards.

And as it moved away from Denham a yawning gulf of blackness which seemed as wide as the night swept toward it and swirled around it, obscuring its angular contours. It was suddenly small, a dwindling blur of spiraling light, weaving in and out between the trees. Then the darkness swallowed it up.

CHAPTER IV

Dimension Shift

NOW THEY were castaways in an alien world, a world of dreadful shadows that kept lengthening on all sides of them.

The trees were gigantic, with pale, almost translucent boles wrapped in coiling tendrils of mist. The boles glistened in the wan moonlight, and the leaves of the trees glistened too. Some of the trees had heavily-veined, flat leaves which gave off a cloying perfume which clung to the nostrils like musk.

Others had foliage which swept the ground in long streamers and gleamed in the darkness with infinite gradations of color, like the sea-lashed tendrils of a Portuguese man-of-war.

On both sides of road the earth was covered with huge, whorl-shaped fungus growths, scarlet-veined and rimmed with long, tapering tendrils as transparent as glass. Between the flat whorls the ground was dotted with scarlet thistles and flowering shrubs, so fragile in structure they seemed woven of stardust and the even more elusive tracteries of the glass-blower's art.

Molly had sensed the alienness back in the cottage, leaping out of bed, and staring out in terror at a sky that had changed. Sharing that knowledge with her husband had made it seem worse, perhaps because it was a knowledge that could not be sanely shared. But now that they all knew, it chilled their hearts like ice, so that they hardly dared discuss it one with another.

Other dimensions, Ralph had said. There were other dimensions impinging on the warm, secure world they'd always known. And now they were in one, stumbling back toward the cottage, a fearful purposefulness in their silence.

Silence was a protection. It was the only safeguard, the only sure anchor in a world where nothing was sure.

It was Betty Anne who shattered it. "Daddy! There's something big and black standing right beside the house. If it's Wulkins, he's grown bigger."

Denham came to an abrupt halt. His lips whitening, he reached out and grabbed his daughter's wrist—just in case. Children had

been known to dash straight toward terrifying objects, for no reason an adult could fathom.

He stood very still, staring past the cottage at the object which had frightened Betty Anne. He could see at once that it wasn't—Wulkins! It was almost as tall as the cottage and it didn't have a square head.

It bulged out chillingly in the shadows, but—a building with oversize foundations which anchored it to the earth. And everything about the object proclaimed that it was just that—a building. It had a massive, architectural look, a firmly rooted look!

He turned to Molly. "All right! Stay put—and keep the kids off my neck. I'm going to take a look."

A moment later Denham turned to wave in the darkness, the strange structure looming above him. "Molly, come here. It's a big stone vault."

When Molly arrived at her husband's side he was crouching at the base of the structure, training the flashlight on a massive slab of rock heavily overgrown with weeds.

"It's made of solid blocks of rock, cemented together a little unevenly!" he exclaimed. "Each block must weigh tons. But the stone's beginning to crumble. I could probably force this entrance slab, if I put my shoulder to it."

"Oh, no!" Molly breathed.

"I'm going to try," Denham said, straightening.

Molly started to protest, but something in his expression silenced her.

Five minutes later Denham was advancing alone into the vault, the entrance slab standing ajar behind him, a narrow shaft of light slicing through the darkness ahead of him. The light sliced through the darkness without dispelling it, like a luminous and expanding wire cutter.

The odors which filled the vault were unnerving. The smell of stale air and earth mold mingled with a fainter exhalation which might well have been the smell of age itself. It did not seem to be the odor of corruption. There was no fleshly taint to it, no lingering reek such as a desiccated shape of flesh might have spread through the darkness, even after millenniums.

FOR A MOMENT the extremity of the beam wavered on a discolored surface of stone as rough as the exterior of the vault. Then it came to rest on a long stone slab,

projecting straight out from the wall on a level with Denham's knees.

The slab was—occupied.

Denham sucked in his breath sharply. The thing on the slab looked like nothing so much as an enormous cicada! Its gauzy wings, which were folded on its chest, glowed with a dull, metallic sheen, and its huge corpse-white eyes stared blankly, as though, after thousands of years, it had given up trying to see in the dark.

The thing conveyed pure horror in its attitude, as though it had been rolled on the shelf and left there to rot. For it had begun to rot, all down one side. Something chillingly like tomb mold was spilling from its vitals.

As Denham steadied the flash a dizziness swept over him. Had the thing on the slab been unmistakably an insect Denham might have endured the sight of it. What unnerved him completely was his inability to put it into any category that did not make for unadulterated horror.

For it seemed alive even in death, as though it might at any moment get up and go stumbling blindly about in the darkness.

There was something hideously functional about it, something that was hard to associate with the slow, sure decay which time brings to fleshly creatures whether they be high or low in the scale of evolution.

There was a silence, thick, cloying, ghastly. Denham fought down his revulsion, and then he saw the small, spindlelike objects which lay scattered at the horror's feet and under its gauzy wings at the edge of the slab.

His vision had become blurred from too much staring. But when he moved closer to the slab, and trained the flash directly on its weathered surface the spindles ceased to quiver and he found himself staring down in stunned incredulity at eight tiny, gleaming spools of photo-film with perforated edges.

After a moment Denham's amazement ebbed a little. His common sense told him there was nothing more functional than a threaded spool of photo-film. Projected images were inseparable from civilization. In fact, it was impossible to think of any advanced culture, in any age or dimension, without cinematographic recordings.

As Denham turned from the slab, shoving the spools into his pocket, he found himself wondering a little wildly if the spools would fit his own cinema projector.

Suddenly his heart pounded in his throat.

Something was moving toward him across the floor. Rolling straight toward him from out of the shadows, with the brittle impetus of an autumnal puffball caught in a sudden gust of wind.

The instant the object came to rest at Denham's feet he stiffened, his senses touched queerly. The object was a fragile-looking crystal globe faintly suffused with light. As Denham stared down at it the light brightened, blazed with a radiance that dazzled his vision and held him rooted.

After a moment the radiance dimmed a little, but still Denham's gaze remained riveted on the globe. The skin crawled at the base of his scalp. Try as he might, he could not wrench his gaze from its gleaming convexity.

As Denham stared something began to stir in the depths of the crystal. A dark insectlike face with bulging eyes and moving mouth parts came slowly into view, grew swiftly larger.

For an instant the hideous face filled the globe, and then, just as slowly, it began to dwindle, moving further back into the glow until Denham could see its entire body, enmeshed in a blur of fluttering wings.

Denham knew instantly that he was staring at a moving image of the ghastly shape on the slab. And—at something else! Behind the cicadashape towered the angular, stationary bulk of Wulkins.

The robot's mirrored image was intact, and it was staring at Denham from behind the cicada with its enormous eyes riveted on his face. It seemed to be reproaching him for what he had done to it, a cold malignity in its stare.

Somehow Denham got the impression that he was gazing at something that no longer existed in reality, the cicada shape restored to a living vigor that belied its immobility on the slab; the robot restored to a mechanical vigor that was like a thought projected from *its* mind to his, through the medium of that hypnotic crystal.

For if the crystal was not hypnotic why was he powerless to move, why did his thoughts seem to float up through his brain and out toward the glow as though drawn by a compulsion outside of himself?

TORMENT CAN take many forms, but the worst kind of torture does not come from pain undergone in a physical struggle. It is subjective—a slow, merciless crushing

of a man's will to struggle. And Denham was feeling that torment now.

Not only was his mind being invaded, its innermost secrets were being laid bare. He felt himself regressing to a more primitive level of consciousness, where everything stood starkly revealed—the red, hideous impulses and rages he had inherited from the jungle, the heritage of humanity's buried apehood—and thoughts which were more primitive still, thoughts no human mind could endure and remain sane.

Abruptly, as Denham stared, sickened to the depths of his mind, another crystal ball came spinning toward him across the vault. The second sphere was much larger than the first and as it came to rest at Denham's feet the light in the first globe went out.

But the second crystal brought no relief to Denham, no cessation of the torment. Instead as it brimmed with radiance his anguish and terror increased, for he saw himself lying stretched out on the slab, with the cicada shape hovering over him, its wings vibrating, a long, gleaming scalpel twisting in its upraised claw.

As Denham stared transfixed the cicada shape bent, and plunged the scalpel into his vitals! Denham screamed.

The scream brought a sudden easing of the tension, shattering the unnatural hypnosis and enabling him to wrench his gaze away.

Afterwards, he was unable to remember whether Wulkins was standing or crouching above the still larger crystal globe which it was just about to push toward him. He only knew that he saw Wulkins clearly for the barest instant, the Wulkins he had maimed, its head still shredded and glowing.

The robot had moved out from a horizontal slab of stone a few yards from the slab, and was facing him in the shadows, a mind-numbing assortment of objects at its back.

The objects were indescribable in that they became increasingly nightmarish the longer Denham stared at them. Cubes without foundations, crisscrossing metal pipes set in frames that seemed to melt and run in all directions, and at least a dozen shapes of crystal that became square one instant, spherical the next.

Some of the crystals were tiny, others were enormous, and a few were massed together in formations that gave the lie to the painstaking edifice of mathematical science which humanity had erected on the premise that parallel lines cannot meet.

If lightning had diffused itself through all the vault in the second that Denham stood frozen he could not have acted with greater presence of mind.

His feet were heavier than they should have been and his fingers felt numb. Yet he managed to switch off the flash and stood facing imminent destruction.

He knew that he had no chance at all of eluding the robot with the light on. By its own glow it could see him faintly, even in the darkness. But with the light off he could see it clearly. By so thin a margin did his safety hang, but the small advantage was all he needed.

He was suddenly in weaving motion, his eyes fastened on the robot as he backed away toward the entrance of the vault. It was terrible enough before the robot emerged from behind the slab and started after him. When it made blind clutches in the darkness, its feet scraping the floor, Denham almost succumbed to panic.

But something he hadn't realized until that instant kept him backing toward the entrance. To give Molly and his children a fighting chance to survive in a world that was black and horrible, he'd have grappled with Wulkins in a death struggle.

No struggle took place. Yet the culmination of Denham's desperate retreat across the vault was just as terrifying in a different way. Three paces from the entrance he stubbed his toe, and went reeling.

Instantly the robot lunged, its glowing arms sweeping straight toward him through the darkness. Just in time Denham regained his balance, leaping so swiftly aside that the robot went crashing into the wall with a harsh, metallic clatter. Then Denham was outside the entrance slab, shouting at Molly:

"It's Wulkins! He was hiding in there! Quick, Molly! Head for the cottage. There's another automatic load in my desk. *Hurry, hurry!* I can't hold this slab much longer!"

Molly stood rigid between her children, holding on tight to them.

"Get away from that slab," she said, almost without moving her lips. "If he wants to come out, let him!"

"Molly, are you crazy?"

"I don't want to be a widow! That's how crazy I am. You're coming with us. We can make it, if we don't stop to argue!"

"Sure we can, Pop!" Johnny urged, his eyes shining in the darkness.

CHAPTER V

The World of Wulkins

FIVE MINUTES later Denham was crouching by a thrown-open window on the ground floor of the cottage, a recharged atomic gleaming in his hand. Behind him in shadows loomed the walls of his study, and in front of him stretched a wide lawn.

The robot was advancing across the lawn toward the cottage, its long arms swinging, its shredded head dark against the sky.

Denham was aware of a warm, reassuring stir of movement behind him. Everything he'd have died to protect made itself felt in that stir, steeling his muscles, steadying his aim.

He waited until the robot's dark bulk blotted out the red moon. He waited until it became edged with a dull glow that brought all its angular contours into stark relief.

Then, and only then, he blasted.

The redness which came from his weapon matched the redness which spilled out from the robot's body as the blast ripped through it. For the barest instant the heat of the blast fanned the air about it into violent motion. Then the smoke of the blast swirled over it, blotting it from view.

When the smoke cleared there rested on the lawn a smoking, stationary metal torso, a half giant with its legs shot away, its globular body box flush with the grass.

And behind Denham, in the warm shadows Johnny was yelling: "He's shrinking, Pop! He's getting small again."

The lawn seemed to tilt then and everything beyond the window spun dizzily. The robot shrunk in erratic jerks. For an instant it seemed to expand as well as shrink, so that parts of it became very large while the rest of it shriveled.

But after a moment even the large parts began to shrink. Smaller and smaller it became, until it was no longer a half giant, but a small metal shape which was all too familiar.

But Wulkins did not remain merely small. He did not remain even a shattered, blackened parody of his antique shop self. He continued to shrink as Denham stared, a cold pricking running up his spine.

The lawn had ceased to gyrate and the

glimmering beyond the window had subsided. But Wulkins continued to shrink. Smaller he became and smaller. He became tiny so quickly that the grass around him seemed to grow up about him, so that he resembled for an instant an inch-high luminous elf shape sparkling in the middle of the lawn, half buried in the long, upsweeping blades.

But it was only an illusion, for Denham could see that the grass wasn't really moving. Only Wulkins was moving, and suddenly Wulkins was gone. A firefly enmeshed in the grass, its lantern sparking out, would have looked no different from Wulkins vanishing. A tiny pinpoint of light in the middle of the lawn glowing brightly and then—nothing, nothing at all. Not even Wulkins, not ever again, Wulkins.

When Denham sank into a chair by the fireplace he was so shaken that his voice sounded like a cracked record jarringly enunciating harsh syllables from a broken down sound track.

"He vibrated the cottage back! We're back, Molly, kids. We're back in our own world. We're back—we're back!"

Both arms of Denham's chair were instantly occupied by his children. At almost the same instant there was a heaviness on his lap, and he was holding Molly tightly and smoothing her hair while his voice, like a cracked record, droned raucously on: "I know we are—because the vault's gone. I could just see it from the window and it's not there. We're back."

Johnny had no difficulty with his voice. He was trembling a little and he started off pale, but when the questions came tumbling from his lips, thick and fast, the color flooded back into his face. "What d'you suppose happened, Pop? What made Wulkins shrink? Why didn't he stop?"

"There are two possible explanations," Denham managed to say. "You can take your pick." He was still having trouble with his voice, but he found to his relief that he could enunciate less harshly now. "Either the atomic blast set his dimension-warp mechanism in motion erratically, so that he was powerless to control it."

Denham wet his dry lips. "Or he deliberately chose to destroy himself. His way of committing suicide may have been to go into a still smaller dimension, to vibrate himself right out of our space too. If that's what happened, we can thank our lucky stars his power to warp the cottage stopped

when he became as small as he was when we bought him."

"But why should he want to kill himself, Daddy?" Betty Anne asked.

"There was something in the vault with him," Denham told her. "His maker, perhaps. All desiccated, shriveled up, as dead as a doornail. When he came back and found the *human*—" Denham gagged a little over the word. "When he found the equivalent of a human being in his world lying dead, despair may have overwhelmed him, and then, when I blasted away his legs, he realized that his number was up!"

"Gee, you really think that's what happened, Pop?" Johnny asked.

"I said you could take your pick," Denham reminded him. "Now that he's gone, it doesn't really mater."

He straightened as he spoke, gently elevating Molly until she was sitting on his knee, facing him.

"It's an ungodly hour for your children to be up!" he reminded her. "I've got a few films I'd like to examine, but I can't concentrate when I'm on the witness stand!"

Molly's eyes widened. "Films?"

"Films, Pop?" Johnny said.

"I'd rather have that than a nightcap," Denham said. "Both the kids, tucked in for the night!"

Molly smiled, and kissed him. "All right," she said.

An hour later Denham and Molly stood in the upper hallway, staring into a shadowed room at the tousled head of their son.

"And Johnny's back in his own little bed again!" Molly whispered.

She shut the door almost reverently. "He's a good boy! He's never made any trouble for us."

"As good as they come!" Denham said.

The instant the door closed Johnny sat up straight in bed. "He'll never know if you don't tell him!" he whispered.

In the bed opposite the sheets heaved up. "Go to sleep," Betty Anne murmured drowsily. "I'm not a tattletale! Besides—I helped you, didn't I?"

Back in their own bedroom, Denham turned to face his wife. "The projector wouldn't take those films," he said. "The perforations were all out of alignment."

"Then you didn't—"

"Don't worry," Denham said. "I examined them. But I had to project them as stills. It was a tedious process, but there's

something to be said for stills. Animation would have turned my hair white."

"What did you find out?"

Denham was silent for a moment. "You'll have to make an imaginative effort to understand," he said, at last. "A very resolute effort. You see, life in a completely alien world would be—completely alien!"

"Well, that makes sense," Molly said. "But it's a little obvious, isn't it?"

"No, it isn't! Nothing's obvious when all analogies break down."

"What are you trying to say?"

"There's one analogy that might apply," Denham said, as though it were being dragged out of him. "The cobwebby old legend of the Sorcerer's Apprentice!"

"The Sorcerer's—"

"Cells," Denham said. "Monastic-like, stone cells, scattered throughout that ghastly dimension. Each cell occupied by a sorcerer and his apprentice. They're not really that, but I can't think of a better analogy."

"Well . . . go on!"

"Each cell a focus of intense intellectual activity. Each sorcerer and his apprentice exploring the mysteries of time and space, of other worlds and other dimensions, spurred on by curiosity, seeking to extend the boundaries of non-human knowledge."

MOLLY BLINKED and thought that over for a minute or two. "Go on!"

"That's the picture I got from the films," Denham told her. "Wulkins occupied one of those cells, with the cicadallike shape. The sorcerer and his robot apprentice. Both distinctly on the malign side."

"Then you were right!" Molly exclaimed excitedly. "You said that when Wulkins came back and found the sorcerer dead, his maker dead, he succumbed to despair."

"Exactly," Denham said. "Only Wulkins didn't find the sorcerer dead!"

"What do you mean?"

"Dimension travel," Denham said. "A robot might be able to travel in a space warp, but it would be easier for a trained intellect. That intellect occupied a body so highly functional, so perfectly adjusted to its world, that it looked *mechanical* to us. If that intellect made certain adjustments in its body—"

Molly's eyes were so wide now they seemed to fill her face. "You mean—"

"Exactly!" Denham said. "The cicadallike shape was the robot apprentice. Wulkins was—the *sorcerer* himself!"



W. Williams

"Arf—arf! Aowouuuu!" yipped Forrest, jumping off the table and extending his right hand

A DOG'S LIFE

By GEORGE O. SMITH

Exploring the future, Jim Forrest finds himself wagging along in a different world and barking up the wrong tree!

ED KNIGHT was scornful of the idea. "Time travel?" he jeered. "You can't make it work!"

Jim Forrest smiled with a superior tolerance. "I didn't say time travel in the first place, and secondly I don't hope to travel. If I went far enough ahead to make it interesting, I'd have as much trouble making a living as an ignorant Twelfth Century farmer

would in this day. And if I went back, I'd be as equally out of place. Frankly, about all that it seems good for would be to go ahead, and then return with a few things that I can use here to make life more comfortable for myself."

Ed Knight nodded. "There's only one thing that strikes me wrong," he said. "Supposing you go into the future and find a gadget that

will actually intensify a light beam—such as an amplified telescope—enabling you to see the small details of a distant planet, for instance. Fine. You like the gadget and so you bring all the nifty details back with you and you are shortly acclaimed the inventor, and you receive a huge sum of moola, and retire on the proceeds."

"Sure, that's the idea," said Forrest.

"Yeah? But then in the year when the thing has really invented, it appears that the thing has been in use for a couple of hundred years as a refined production, not even as crude experimental models. Why should any inventor go through the labor of inventing the thing from the beginning when the thing can be brought back, complete and working, from the future? Therefore it is never invented and you couldn't bring it back. Whereupon it is not there and the inventor can then invent it, which of course means that you can bring it back, thus making its original concept unnecessary. Whereupon if it was never invented, it wouldn't be there for you to look over and bring back as a good, money-making idea—"

"Woocooah!" yelled Jim Forrest. "You're talking in circles."

"Uh-huh. Remember Toynbee's famous knife? Well, where the devil *did* that start?"

"We're off the track," said Knight. "I have this gadget, and if nothing else, we can see what kind of an answer Nature has to the Paradox."

"Okay, we'll see. How does it work?"

FORREST waved his hand at the device. "I can't travel, but my mind can. This machine will select some sentient being or animal in the future, that is ready to receive my intellect. For a period I can set beforehand, I will live in that being's body and be—me.

"I can go where he can go, and when I leave, I bring back with me whatever I can remember from any experiences I have during my term of occupation. The only thing, I don't want to rush off and leave the thing running unattended. Therefore I want you to sit by and see that nothing goes haywire. Okay?"

Knight nodded. "Just show me what to do."

"That won't take long," said Jim. He handed Knight a few pages of typescript and started to explain certain factors. In an hour, he was ready. He lay down on a small

couch and fixed an electrode-studded helmet on his skull. Then with one hand he reached out and snapped a switch.

Thirty seconds later a series of relays clicked home, and the figure stiffened; the eyeballs rolled high into their sockets, and Jim Forrest's body seemed to sleep. . . .

* * * * *

He opened his eyes and found himself sprawled on a thick, comfortable carpet. His front paws were forward and his chin was resting on them. He looked up at a male figure seated in a heavy chair with a book and he felt an uncontrollable, ridiculous impulse to wag his tail. He did, and it felt good.

He looked idly around the room until he saw a woman reclining on a broad couch with a small newspaper. He liked her looks, but the whistle was stifled by the happy fact that his lips would not purse properly. He just put his tongue out and panted.

He stood up and stretched, and wondering what was in the paper, he leaped up on the couch beside the woman. She put out a hand and stroked his head, which he found most pleasing, and he nuzzled her hand before he turned his face toward the newspaper.

Aside from the date, which was some two hundred years to the future, it held little interest to Jim Forrest. A theft; a notable's opinion on the state of politics; a publicity squib; a lightly-touched humor-spot. An advertisement—mostly of the female wardrobe and according to Jim Forrest's memory, quite similar to the wardrobes of periodic style-cycles. They were back to low necklines, high waists, and short skirts again, he observed and he wondered how many vacillations the styles had gone through during the intervening two hundred years.

The woman scratched his ear idly, and then ordered him to get down.

Down! Then it struck him. Jim Forrest was inhabiting the body of a dog! He tried to speak, but all that came out was a plaintive bark.

"Topsy wants out," said the woman in a musical voice.

"Well, Topsy knows how to get out," replied the man lazily. "Let her go!"

Topsy! Jim Forrest was stunned. He was—he was a—well, he'd never admit it, period!

The woman stood up, stretched, and went out into the back of the house. Jim followed, filled with curiosity about the house. It was quite the House of Tomorrow, a combina-

tion of comfort and utility.

The woman reached into a cupboard and took out a square box, from which she took a bone-shaped biscuit.

"Here, Topsy. Dog Biscuit."

Jim eyed the biscuit with disfavor.

"Now, don't refuse your biscuit. It is filled with the vitamin requirements of any city dog. You don't get them in here, you know."

Jim wondered. Either the woman was inclined to talk to anything that looked as though it had ears, or— Anyway, she was talking to him as though she expected him to understand.

"Must I insist?" she asked him.

JIM reached up and accepted the biscuit. Very reluctantly he bit into it. He'd bitten into dog biscuit before, and it had all the flavor and texture of well-dried, hard-pressed, shredded cardboard. But this was different. It tasted good, and he polished it off with relish.

"There," she said. She returned to the living room, sat on the arm of her husband's chair. "Topsy was reluctant about accepting her biscuit, Edward."

He put down the book and eyed Jim, who was standing on the floor in front of him.

"What's the matter with you?" he asked.

"Those things are good for you."

Jim wondered if he were supposed to say something. He tried, but all that came out was that plaintive bark.

"Look, Topsy, don't sit there and bark at me," said the man sternly.

Jim thought: What the devil am I supposed to do—sing?

"I think Topsy is ill," said the woman.

"We'll take her to the veterinarian's, then," replied the man. "Come on, Martha. Now's as good as any time."

Jim trotted out to the automobile with them, and hopped into the rear seat. The machine was a revised version of the Car of Tomorrow excepting that it had no wheels. The shape was that of a slightly flattened ovoid with quite a bit shaved off of one side—for the bottom.

The larger hemisphere was the front, and the entire upper half was a clear, unobstructed glasslike substance, either glass or plastic. Jim scratched it—and it scratched with some hardness, so it was not glass. He tasted it, but it was tasteless. It was air-warm.

And he got a stern reprimand from his

master for, one: making scratches on the surface, and two: for putting nose-prints and lick-marks on the ultra-clean surface.

Then the car lifted by an inch, firmly and without tremor. It moved sidewise first, and then floated straight up for five hundred feet, turned a quarter way around, and darted forward swiftly. Below, they could see the rooftops of the community, and once they passed a car on their own level, going in the same direction.

Cross traffic went either above or below by a couple of hundred feet.

They did not cross toward any city, but went across open country until they came to a huge enclosure, into which the man dropped his car and parked it beside several others.

"Come, Topsy," ordered the man, and they went into the building nearby.

They waited in the waiting room, and Jim Forrest knew fear, for as they entered his first view was that of a huge Dalmatian that eyed him with disfavor. The Dalmatian got up and growled, and Jim felt his hackles rise.

"Butch!" snapped the Dalmatian's master. "Lie down!"

Butch registered canine disappointment and reclined, but Jim would have preferred that the bigger dog were leashed.

But eventually the doctor came, and they went in.

"Trouble?" asked the doctor.

"We're not certain," said Jim's master. "Topsy refused the nightly dog biscuit, and then barked when I asked what was the matter."

The doctor looked down at Jim. "Here, Topsy. Up on this table."

Jim might have grinned. He'd show 'em. If they expected him to understand them, they'd be surprised! He obeyed the command.

"Open your mouth and stick out your tongue," said the doctor. Jim did, after deliberately looking around to be sure that they were all watching.

"His response seems slow," said the doctor, with some concern. "Raise your right front paw!"

THIS Jim did, after some thought. He was not used to having his right hand called a paw, and he had to think before he lifted the member.

"Definitely slow." The doctor turned and

picked up a thermometer. Jim looked askance at this; he'd seen a dog's temperature taken and he felt like objecting to the indignity. But the doctor shook it down, and presented it to Jim's face. He inserted the thermometer below Jim's tongue, picked up a paw and felt the pulse.

"Any pain?" asked the doctor. Jim puzzled, and then shook his head. His long black ears flapped against his chin and cheeks. "Discomfort? Food agreeing with you?" The doctor ran through a list of possible symptoms, to which Jim shook his head to indicate "no."

The doctor read the temperature and then sat down at his desk, thinking.

It was at that point that Jim Forrest really began to wonder. They all were treating him as though he were expected to know their tongue and to act accordingly. Instead of being surprised when he followed the rules, they were a little hurt that his response was slow. And when he shook his head in response to a question of some complication, they accepted it as normal.

Perhaps he should really show them some intelligence. On the wall behind him was a large wax-slate, and Jim stood up on the table and faced the slate. He sat close to it and extended his right paw.

"Why, Topsy's using her other foot," exclaimed the woman. "Her toenails aren't cut for writing!"

Jim blinked, and looked at the foot, and then sat full up and compared the two feet. The nails of the right foot were clipped short; the left foot had one long nail. Jim wondered if he could manage the left-handed paw while writing, but he tried.

"That's better—use the left one like a good dog," said Martha.

The doctor smiled. "Perhaps the dog has been trying to switch," he said. "That often causes trouble, you know."

Jim wrote:

$$\begin{array}{r} 2 \times 2 = 4 \\ 4 \times 4 = 16 \end{array}$$

Then because he couldn't recall offhand what the square of sixteen was, he put it down in longhand:

$$\begin{array}{r} 16 \\ \times 16 \\ \hline 96 \\ \times 16 \\ \hline 256 \end{array}$$

After which he turned to them and waited. "Has he some fixation with numbers?" asked the doctor.

"Not that we know of."

"It's strange that a dog should just turn and write that elementary stuff," said the veterinarian. "Has he had the normal canine education?"

"Of course."

"But simple multiplication—we include mathematics only as mental training and never expect a dog to take to the stuff. Wait."

The doctor lifted the cover-sheet and cleaned the slate. Then he wrote:

$$\sqrt{316,448}$$

"Now, Topsy, if you like numbers, do that one!"

JIM looked at the thing. So that's how it stood! Well, he was as smart as any dog, and so he did it. When he finished, he turned to see the doctor calculating mentally from the face of a stopwatch.

"Timing's not too bad," said the doctor. "Yet there's something off-key here. Too bad dogs can't talk; I'd like to give Topsy a word-association test. But if the dog has to write the association-word, it gives time to frame an answer. We can try him on the blot-test."

He took a chart from his desk. It contained a number of printed blots which were similar to those made when you drop ink on a folded paper and then crease the paper while the ink is wet.

"Now, Topsy, take a look at this first blot and write down what your impression of it is."

Jim looked at the blot. It was jagged and lacelike, and to Jim Forrest it resembled the filigree work on a wrought-iron fence. He wrote that down. The next blot made him think of a scientist peering into a microscope, the third was an octopus, the fourth a cumulus cloud. And so on through the batch he went.

"Have you been treating him in any strange manner?" asked the doctor.

"Not that we know of."

"Well, from the results, I'd say that your dog is suffering from a delusion. Topsy seems to think that she is smarter than any dog in the Solar System."

That brought forth a general laugh, which Jim resented deeply. He sat up and wrote:

"Am I not?"

The doctor smiled tolerantly.

"Topsy," he said. "No doubt you are quite intelligent, but you mustn't get grandiose ideas." To the man, he said: "Mr. Harding, what is your business?"

"I'm a neutrinics engineer."

"Topsy, do you know what that is?"

Jim wrote: "The neutron is an atomic particle having no charge and an atomic mass of 1.0089."

"Now, where did he get that?" asked the doctor.

"Topsy, have you been reading any of my collection-volumes?"

Jim realized that he had made an error of some sort. Doubtless two hundred years had added to man's store of nuclear physics. So he nodded.

"Thought so. We've been basing all atomic masses on the neutron being unity. But Topsy misunderstood, Doctor. Perhaps you'd better check the dog's word-recognition. Not only is Topsy slow in response, but she misconceives the word." He turned back to Jim. "I said neutrinicist."

"The neutrino," wrote Jim, "is an atomic particle having no charge and a mass approximately equivalent to the mass of the electron."

Mr. Harding shook his head. "Those old books," he grumbled. "Why, they were so crude that they could hardly detect the difference in properties between the isotopes of hydrogen! About all they knew was that deuterium-water boiled at a different temperature than normal water, let alone the many other differences in physical and chemical properties."

"They were rather vague," the doctor said with a smile. "They say that the old boys knew nothing of inonotronics or even azycentric geometry."

"No. Kiefer made his initial discoveries in inonotronics less than a hundred years ago. That must have been a dull time, indeed. Imagine living in a world without science! Never to know the relation between the Skarmer principle of light and the polypolar fields. Why, men couldn't live without the practical application of the polypolar fields."

"Supposing that DeGallman had never realized that bipolar gravitic fields existed, though. Then what?" asked the doctor.

theory of gravitics is naturally the next step. If DeGallman hadn't researched, others would have found it in a matter of months. It doesn't take a single genius to put an azycentric crystal in a polypolar field and observe the results. After the results are known and analyzed, the use of the geotonic is almost mandatory. Then comes the tetrapositional gravitostriktion and its analysis. This leads to the whole useful field of inonotronics."

"An interesting viewpoint," observed the veterinarian. "I'd like to continue, but we have a patient here. Psychoanalytically, I'd say that Topsy has been reading some of your old volumes and has a distorted viewpoint. Many of the statements made as fact are at such a variance to the known fact that reading them might well be dangerous to a mind not trained to receive them."

"For some unknown reason, Topsy is certain that her intelligence is higher than any other dog's, and I believe that she may even consider her intellect as high as a man's. Frankly, she is—quite normally, too—a good deal lower than the moron."

"I say this in front of her because we are going to eliminate it all anyway, and re-educate her. No man wants an insane dog in his house. You may, of course, consult some other dog analyst before proceeding?"

"I trust your judgment, doctor," said Mr. Harding. "You may proceed."

"Thank you. Yes, we'd be lost without inonotronics. My mental therapy machine is based on the qualtorescintive fornance circuits. No pain, no strain. Come, Topsy!"

Jim viewed this with distrust. He hung back, and when the doctor went over, Jim bared his canine teeth and growled.

"Recalcitrant, too?" muttered the doctor. "A slight paranoid tendency, easily dispelled. Topsy, listen. You will either come with me or you'll come under the influence of tetradiphenylene-sarcophomate, olfactorily introduced. Which?"

Jim hung his head, and with his stubby tail down, he leaped from the table and followed the doctor.

The machine was not terrifying nor complex. He was laid on a table between two plates, and then the doctor pressed a button on the machine, and Jim Forrest's mind blacked-out. . . .

* * * * *

HARDING shook his head negligently. "When they isolated the neutron, the

Ed Knight's vigil was tiresome. Twenty-

four hours is a long time to sit and watch a machine do nothing apparently but maintain certain fields and potentials as indicated by a batch of simple meters. He dozed and he ate reams of sandwiches and drank gallons of strong black coffee. Finally the time came, and he waited for Jim Forrest's return.

The clock ticked, and the relays clicked, and the machine ran down to a stop. The man on the table opened his eyes and looked around. "Well, what did you learn?" asked Ed Knight.

Forrest jumped off of the table onto all fours. "Arf! Arf! Aowouuuuuu!" he said.

IT WAS Ed Knight who wrecked the machine.

THE READER SPEAKS

(Continued from page 10)

turned in excellent shape with crews intact—but with uniform reports of failure. None of them has reached its destination.

But this Tellurian activity has stirred up queries on Mars—employed as a sort of trading post or consulate by members of a species dominating a far more distant galaxy. The result is, of course, that they send an expedition to Earth to learn what creatures are making such progress and bring back specimens.

The specimens these emissaries come up with are Paul Garland, New England storekeeper, and his sailing and handyman pal, Fatty Myers—a couple of the most unlikely individuals they could have selected outside of pigmy territory in Central Africa. What happens? Well, you'd better read Paul Garland's account as put down by William Tenn. You won't forget it in a hurry.

Novelet Two is **AHEAD OF HIS TIME** by the old master himself, Ray Cummings. This is the story of Sanjan Thome, son of a couple of nuclear physicists, who causes Geiger counters to click at alarming rates when they come close to him. He is, in short, a radioactive mutant.

But Sanjan Thome is more than that. Able to transport himself by means of thought, he soon learns that his mission on earth is to save earth from destruction via atomic power. And in fulfilling his mission he becomes the most feared, hated and hunted creature in the world.

This is the most powerful and thought-provoking tale Mr. Cummings has written

And it was six weeks before he could get Jim Forrest to walk on his hind feet and hold things in his hands. Forrest came out of it gradually, but to the day he died, he had an uncontrollable urge to wag his non-existent tail.

A year after his fateful trip a scientist by the name of DeGallman observed some strange radiation effect emanating from a strange crystalline mass when it was immersed in a multipolar motor field winding. He put it down as a possible discovery and figured that it might take five years of analysis to unravel the scientific reason for such an occurrence.

The man who might have known didn't remember a thing.

since his famed **THE GIRL IN THE GOLDEN ATOM**. Those comparatively new readers among you who know Mr. Cummings only by his "Tubby" series have a major surprise in store for yourselves.

These three long stories, by the way, are illustrated by Virgil Finlay, Stevens and Astarita in that order.

There will be more short stories than in the past, of course, as well as another novelet—**AND THE MOON BE STILL AS BRIGHT**, by Ray Bradbury. We have—licking our editorial chops—all that extra space to play with for your enjoyment. Also present, will be the Science Fiction Book Review and this department, along with certain new features now in the works. You'd better climb aboard again come the June issue.

LETTERS FROM READERS

WELL once again the meeting comes to order for sack time—mail-sack time. Pause—while we throw our inhibitions out of the window and let them parachute gently to the next roof, seven stories below. First place this time goes to an English correspondent who seems to be very much up to date on our doings over here. So—

CRITICAL MASS

by Richard J. Hooton

Dear Editor: The letters in the "Reader Speaks" plus certain (to me) unsolved mysteries, plus an accumulation of personal opinions have caused me to reach "critical mass."

Firstly, congratulations on the general allround im-

provement since the summer, 1945, issue when I started my subscription.

The standard is now beginning to approach that of the period of the 'Penton & Blake' series, the early 'Via Series' and the Carlyle-Quade epics, when every issue contained a majority of good stories. Whereas in the aforementioned summer, 1945, issue the only worthwhile story was 'Things Pass By' by the old master, Murray Leinster—that was the first rate and an example of what I call a genuine science-fiction story which is based upon a scientific theme incapable of being transposed into a Cowboys and Indians' tale, like many so-called S. F. tales!

I was also glad to see the return of Gerry Carlyle in 'Siren Satellite' and Tony Quade in 'Trouble on Titan'—some more please, and teamed up also!

Concerning the potential energy in a spring, I came across a similar problem as to what would happen if the spring were compressed in an acid-proof gadget and immersed and dissolved in dilute sulphuric acid.

The answer gave the quantity of heat developed by the solution of the metal, plus the heat equivalent of the energy necessary to compress the spring; this latter resulting in a very slight increase in the rise of temperature due to heat of solution.

Another interesting letter is Howard K. Roben's with his suggestion of a straw vote to name the ten best S. F. novels in the past 20 years. Well, here are mine (not in order of merit)—

Exile of the Skies	Richard Vaughan
Wreck of the Asteroid	Laurence Manning
Skyrark of Valeron	E. E. Smith
Legion of Space	Jack Williamson
Sidewise in Time	Murray Leinster
The Inner World	H. Hyatt Verrill
Universe	Robert Heinlein
Rebirth	Thomas Calvert McClary
Grey Lensman	E. E. Smith
By Jove	Walter Rose

This now brings me to my other point, that of unsolved mysteries.

Now in the last two issues, February and April, 1936, of the old Wonder Stories, mention is made of a story called 'Maze of Creation' which was to be a sequel to 'World of the Mist' by Laurence Manning in the September-October, 1935, issues. But T. W. S. took over and it never appeared.

What I want to know is this, was it ever published anywhere else and also, what has happened to Laurence Manning?

At the same time as the above, 'The Jester of Xenonia' by Philip J. Bastel was scheduled to appear; what happened to it and him? Anyone know?—Elm Cottage, 133 Ashgate Road, Chesterfield, Derbyshire, England.

Well, Mr. Hooton, it is nice to receive an approving pat on the back from overseas for what we are trying to do here. Your acidified spring is as clearly dissolved as any such problems can be. And your ten favorite novels certainly belong up near the top.

But when it comes to what happened to the Gernsback inventory when this office took over the old WONDER STORIES, we find ourselves at a total loss. Hence we are issuing an appeal to anyone (are you listening, Ackerman?) who has knowledge sought by Mr. Hooton to blow the price of postage to England for his enlightenment.

FLASH OF LIGHT

by Technical Sergeant John W. Patch

Dear Editor: Just finished the December TWS and found it good. Even Margaret St. Clair is excellent, especially since she stays away from the Super-Whoo! theme. Best story of the issue is G. O. Smith's QUARENTINE. No one can compare with Smith when he's writing about an engineering problem—be it electronics, metallurgy or what-have-you. Bradbury's IRRITATED PEOPLE was second, with Mrs.

St. Clair's short next. The rest were well written but had nothing new to offer.

Permit me an observation on this "faster-than-light" controversy. Isn't it possible that the earth itself may be travelling at a speed greater than the speed of light, with reference to an hypothetical point in space? I'm not familiar with the figures but the Solar System moves fairly rapidly with reference to the galaxy. And how fast is our galaxy moving with reference to the "Universe"? And how fast does the "Universe" move with reference to a "super-universe"?

If travelling faster than light converts matter to energy perhaps our Universe is just a flash of light or a pulse from a radar set in some macro-cosmic universe! How about that?—Squad F, 611 AAFBU, Eglin Field, Florida.

For some other reason than Sergeant Patch's speculations we have long tended to regard ourselves as a mere flash in somebody's pan. Whew!

ILLUSTRATION HOUND

by R. E. Fontinelle

Dear Ed:—When I saw Bergey's cover for the December Thrilling Wonder I could hardly believe it. A swell cover, wonderful symbolism, and it didn't have the wording spread all over it. Wonderful stories and now, better art.

On the subject of art, I know that the magazine isn't just for pictures, but they mean a lot to me, and I think they do to lots of other fans as well. I don't have the room to save all my STF magazines, but I have the covers of all weird and STF magazines from 1933 on mounted in scrap books according to Subject—Robots, the Planets, Lost Races etc.

The illustration sets the story for me. Just as a play can have swell actors and wonderful dialogue, but if they isn't any scenery it just doesn't seem to have the appeal. Yes, I saw Maurice Evans' modern Hamlet and I didn't care very much for it. So, the more Stevens, Finley, good Bergey and fine covers I get, the happier I am. The last few months I have been very happy.

Say, Ed, everybody has shot couplets and rhyme at you for so long, how about a little free verse?

The night wind
Moans between the graves.
From his nitred grof
The Sleeper creeps into light.
The elixer drained
From his shrunken veins
The last, lone man to flee
The atom's wrath.
The World is dead,
The Future, this is it.
The lonely wind hunts dead leaves
Down the ruined street.—3345 Louisiana
Avenue, St. Louis 18, Missouri.

What the—? Well, all we can do is give it a try.

At night on one or two occasions
In a past that has at times
Been taut
With overwrought
Emotion

We have trod a measure unbeknownst
To all but
Our alleged subconscious
Upon rug warm or floorboard cold
But as for creeping
Al fresco
And in a graveyard too
We leave that to you.
Okay, R. E., okay?

A NOTE OF CHEERY

by Rick Sneyry

Dear Ed: Seems I've been a little lax in writing you of late, well don't worry, I still love you all. And besides if I didn't write all these letters I would never meet those new fans that write me.

Well as a fairly old letter hack lets start things off right with a look at the Dec. TV 8 cover. And quite a cover it is. It is not Earle's most beautiful cover, but it is the best composed. And you can show it to people with out them being "tisk tisk" to themself. Yes, except for the read background it was very good. Really symbolic in a way. With war in the top hafe of the glass running through and destroying the worlds.

As for the stories this ish, all I can say is how good can you get. Only one story I didn't care for. And that one was by all people Kuttner. (No no, but down that gun!) By it self *The Power* and the *Glory* would have been a good story, but it was a little to much like the past. I looked in the file of TWS and SS, and found, *The Way of the Gods*, *I Am Eden*, *Land of the Earthquake*, and way back *The Dark World*. Now the last two in the list I thought were grate, but must you run the same type of story over and over. It is like the books by Morris, all good, but alot a like. Mr. K wrote a article for a fanzine about rotating stories like farmers do crops. Well he better rotate.

Only other story I didn't completely enjoy was *They Wouldn't Dare*. It was a slightly over used plot. Tho it was well done, and there really was nothing wrong with it.

It is impossible to rate the others, as they were all tops. Smith is a marvel at wipping up gadgetry and making it sound like it would work. Didn't quite understand that delayed A-bomb tho.

The Nameless Tomorrow was one of the best stories by Wellman I have read in a long time. It was very good. I heard a theory about Nostradamus once. They thought he fortell the furure allright, and knew in what order things would happen, but he mixed them all up so people wouldn't think he was too good. (Manly showed what could happen if people thought this. Hot foot all over.)

The Admiral's Walk and *Pietty* were both very good stuff. Was a little surprised at how good both of them were. I am almost convenced that Miss (?) St. Clair can write. It was a very charming story and thought. A little off the usual track of stf tails.

THE IRRITATED PEOPLE by our fair haired boy Bradbury of course walked and ran off with most of the honors. How could anyone hope to have any with him around. I chuckled, and laughed and all but rolled off the bed. It was the funnest story your Co. has ever run, as far as I know. It was wackly wonderful. Get more. And I don't mean just funny stuff. Tho his hummer is the best in science fiction, his serious stories are good too. More MORE.—2962 Santa Ana St., South Gate, Calif.

Nice click, Rick. Though I think you are wrong about Kuttner. His stories themselves are not alike. It is his sameness of mood in tale after tale. And since this mood is magic, pure and simple, how can any imaginative reader beef about getting more of same? We remained stumped, appalled and, yes, somewhat aghast. Something we ate, no doubt.

Dont worry, you're going to get more of Bradbury in all lengths and all sorts of stories. Though we are still muttering to ourselves about that "Mad about him, Sad about him" etc. The young man can write, which about sums it up.

SAME OLD THING

by H. H. Haly

Dear Ed: Re: Dec. ish TWS. Did Bergey put him-

self on the cover or did Nostradamus get mixed up in the *Power* and the *Glory* and get red paint all over everything? Looks like the artist on pp 68-69 & 71 is the original creator of Flash Gordon, good.

Who is this Andrew Gregg that dares defile our sacred method of communication, conversation, and blaspheme of artists, authors, and BEMs? The Constitution should have a special amendment requiring him to keep his cosmic dust, radioactive flit-guns and padded cell to himself. (Is this letter was good, however, lets have more like it.)

As usual the Reader Speaks was spell-binding, the longer, the better.

The Power & the Glory, by Kuttner, very, very, good. It took a little imagination in parts, but no one without imagination should read stf.

Quarantine by Smith, good interest holder, new idea, very plausible except that the President or Army or any American authority does not have the power to execute a group of people simple because they are contaminated.

The Timeless Tomorrow by Wellman, very good and slightly different from the usual stf. More like this please.

They Wouldn't Dare by Mines, Well written but the same old thing.

The Admiral's Walk by Merwin, ditto.

Pietty by St. Clair, good, but the moralistic ending is not for stf.

The Irritated People by Bradbury, Excellent. Should have one like this in every ish. Keep Bradbury in.

Pome
Oh famous Ed, (or Sergeant Saturn)
I write this zilch to follow pattern;
The other fans all are happy
Your mag is good, pics are snappy;
The stories thrill us to the core
And find us wanting more and more,
The Reader Speaks, is fine, methinks
But dear oh dear, that, Ed sure stinks!

Sorry pal, but I just couldn't resist the temptation at the last.—Box 403, Fairfax, Calif.

You figure out that December cover for yourself, Haly. It isn't that tough. As for the artist, his name is Napoli and, as far as we know, he never drew Flash Gordon. Now—!

Oh, you who say we're aromatic,
In verse that really is sciatic
We wish you'd keep it to yourself,
For if you bring it to the light
We may have to admit you're right
From here on in, bub, cut it short
Or else we'll Haly into court.

Did we say something in the last edition of this column about there being a notable diminution of submissions in verse or worse? We should have known better, if this is any sample, Well, it's all in fun—or is it?

BETTER HIDE

by Don Wilson

Friend Editor: You've outdone yourself with the December TWS. Migawd, man—you better hide, in case the publishers find you. No rotten stories! Not a single blessed one! How long can you keep it up?

1. THE POWER AND THE GLORY, of course. Knutson's mood of unreality proved to be the right thing to use. That was a nice idea—that "unreal" writing to make way for the eventual unreality of the place where the action was. The moralistic stuff at the end we could have done without but, after all, yarns with good writing don't need titanic plots.
2. THE TIMELESS TOMORROW—I liked it. Won't say any more.
3. THE IRRITATED PEOPLE. I suppose. Haven't seen that idea of irritating the enemy by concrete actions before, the wars of nerves by words alone are of course common. It would be interesting, though not exactly pleasant, to see how far such a war could go. There is a limit, of course; if one side started

going mad in droves, the side driving the other mad would be liable for punishment for making an overt act of war—or would it?

4. **QUARANTINE.** Smith is always good. But don't overdo the anti-capitalistic propaganda. Not that I'm in favor of capitalistic tycoons, you understand—just that enuf is enuf.

5. **THE ADMIRAL'S WALK.** Couldn't see much point, but whatever the purpose of the story was, it was accomplished creditably.

6. **PIETY.** The excellently written introductory portion led me to expect a little more than there was here, but it was well-written anyway.

7. **THEY WOULDN'T DARE.** Not too original, but it was well-done. Was he Samuel Mines? Is he a pen-name of a certain fat man?

Gilbert Swenson suggested this, and I think he's right—why don't you separate your editorial remarks into a separate column from the readers' scratchings? An editor's page would be a nice addition to TWS, methinks. You could stick it on pages 6, 8, and 10, and put the reader gurgles in the back of the book. What do you say? Of course it won't be accomplished, but one never ceases to hope, as they say somewhere or other. . . .

Cover, as 'Couvering would put it, hyper-keen. Thanks for bribing the art dept to take the girl out. I suppose she'll be back next issue, screaming more loudly than ever. I had great hopes after the **LORD OF THE STORM** cover, too, but you dashed them to prohibition with the Chinaman on **THE MAN IN THE IRON CAP.** I'd beg you not to do it again, but you probably will.

I'd vote the ten best of year, but don't have all the 47 issues on hand. Nod, tho, goes to Atomic, Noon, Powerandglory, Tongue Cannot Tell, and a few more. You, my friend, have a mug to be proud of. Keep it that way. Shoot the #1-8-2 authors if they skip, but keep it good.—495 N. Third St., Banning, Calif.

All right, we'll try to come up with some answers, Donald. How far a war like Bradbury's could go is something to shudder at but not to worry about. Those who invariably control a people could never see a profit in wasting all those nice gadgets when there are armaments to build.

Samuel Mines is nobody's pen name, in spite of your snide insinuation. If you get a visit from him, be prepared. He's plenty sore. You see, he's not especially plump. As for the shooting of authors, the Department of Game Conservation has not yet got around to declaring an open season on them. And the penalties for poaching are extremely stiff. Did you ever try a poached author? Well, don't, take it from us.

NO DREAM IS RIGHT!

by William E. Rose

Dear Editor: The following is offered in tribute to S. V. McDaniel in appreciation of his comments on *Time Travel* in the December issue of TWS. *Leaping elves and swinging batons, guide us through the doors of time, plus a dash of fine equation—quilt your push-stay in line! Crawl ten inches in five seconds, multiply it with an naught, and you'll wake up on the time train, with a ticket ready bought. Seems as if Einstein and Ike Newton, were a trifle off the beam, but McDaniels' wit has solved it, now time travel is no dream!*

I will close with this admonishment please don't be surprised if I should drop in to see you about 400 B. C. or before, thanks to our friend, S. V.—P. O. 430, Beaumont, Texas.

Elves and Batons, doors of time, haply warped to rhyme with line,

Equations, pushing, ten-inch crawl, cut it out before we bawl.

Time train, tickets, pink or green—who the heck is this Einstein?

We shall await your visit with pleasure, Father William, whatever the young man may have said.

INDIAN ZIMMER

by Marion "Astra" Zimmer

Dear Editor: You might think that, with college in session and literally piles of unread stuff deluging my room, this latest TWS would have to wait to be read. But, no! so! Why I couldn't even wait for my sub copy, I went out and bought one on the stands! This issue was supernal, supercolossal, superior!

The best issue since the memorable Fall 46 ish, which contained CALL HIM DEMON by Hammond, POCKET UNIVERSE (In my opinion Leinster's best novel except **MAN IN THE IRON CAP** to date), **THE GOOD EGG**, **WYVER**, **THE TWAIN SHALL MEET** and **THE LITTLE THINGS**. This issue almost tops that. **THE POWER AND THE GLORY** was perfect. Far, far better than most of the stuff Hank has been rapidly tapping out lately. You'd better look out, he'll be writing another **VALLEY OF THE FLAME** before you know it!

"The scope of Kuttner's stuff, you know

Seems to demand my theme's expansion.

No prose could do it justice, though

My poetry be short of scansion."

I wrote that poem, by the way, just to prove that there WAS a rhyme for scansion. Can YOU do that? And by the way here is a note for those who criticize Hank for writing too rapidly. Handel's **THE MESSIAH** was written in 8 weeks. Mozart's **DON GIOVANNI** overture in a single night. Both are adjudged masterpieces. Sure, Rome wasn't built in a day, but this is a new world and things HAVE speeded up a bit, since then!

Second place goes to Manly Wade Wellman. Not so certain that it shouldn't be first. There should really be a sequel to this story. Next place goes to the **ADMIRAL'S WALK.** It is WONDERFUL, a gem, a masterpiece. Write some more, please, please! I never read a Merwin story before. I want to make up for lost time! Pardon my rave.

Samuel Mines should go on strike. *That story* deserves a lockout. Maybe they wouldn't dare but after reading that snaggletoothed piece of tripe I would!

PIETY . . . **MISS SAINT CLAIR**, shame on you! This is the first really rotten story she has written! But it WAS rotten. Worse than **PROBATE**. Come on, Peggy, get in the groove again! **QUARANTINE** was good . . . for Smith that is. The Bradbury short ditto. I remember the first Bradburyan I ever read, which was printed in your mag: **ROCKET SKIN**. THAT was some story! By the way, where are all the humorous authors that used to live up to Oldie Thrilling Wonderful? I'll never forget Ross Rocklyn **THE GOOD EGG**. Funniest thing I ever read, in TWS. No—I take that back. Your story about Kuttner's hibilities was that. Anyway, where's Ross?

Now to leave scientification and turn to an intensive study of **THE CANTERBURY TALES** and **SIR GAWAIN AND THE GREEN KNIGHT**. Which last might even be called fantasy. Of a medieval type. And surely **BEOWULF** is pure fantasy.—R. F. D. 1, East Greenbush, N. Y.

You seek another rhyme for scansion?

Then wait until I get my pants yon

Mattress holds them flat.

Twixt you and us I see a gulf

Ope wide if we can't Beowulf.

Now let's see you match that!

More or less seriously, Marion, we recall with shudders delving into the mysteries of **Beowulf** in Anglo-Saxon under the tutelage

of the late J. Duncan Spaeth at Princeton many many years ago. Medieval French was a snap by comparison with the rudely complex tongue the Norman French so thoroughly eradicated. Maybe you'll have better luck, but ever since then we have been inclined to side with the wicked knights against Robin Hood and his Merrie Men. How could they be merry in such a language?

TAKEN OVER

by Arthur Schlosser

Dear Editor, TWS: In your December issue, you seem to doubt J. P. Conlon's assertion that guided missiles could be "taken over." Naturally they could be, for if any one has lived around several radio stations they have found their program taken over by some stronger station.

Most radio circuits are designed to eliminate all noises below 1/10th of the desired signal power. Thus if you are listening to one program and some station ten times stronger but in on the same or nearly the same frequency, the weaker station has no effective control at all of the receiver.

With a guided missile, the controlling station may well be very remote from the target. As signal strength falls off greatly with an increase in distance the target area could easily muster enough power to usurp control of the missile. During the last war, radio controlled robot bombs were used in England.

These planes would travel along the beam till they intersected another at which instant they would perform the desired movement. The British upon learning of this were able to lead the planes away from the target area.

Maybe future developments will prove contrary but it has been my conclusion while serving as a Radio Technician in the Navy, that the defending party has the upper hand if his equipment is as good as the enemy's. For successful operation, the attacker must have decidedly superior equipment.

In conclusion may I add that the magazine, especially the Reader Speaks has improved immensely since August of '45 when I first started reading it.—811 West Moulton Street, Pontiac, Illinois.

Thank you, Mr. Schlosser, for further explaining Mr. Conlon's missive in the December column. However, we never expressed doubt as to the validity of his statement. We quote—

"Most interesting point in a highly informative letter to us is Mr. Conlon's mention of the fact that guided missiles can be 'taken over' by defenders in the target area. This presents a whole new vista of speculation in the field. Let's hope, however, that guided missiles are confined to peace time target areas for eons and eons to come."

If you can find anything doubtful in that, we'll buy it. However, enough of quibbling. I hope you are correct in supposing that the defenders, granted equal equipment to their assailants, may have the advantage in such warfare. It would do a lot to stop aggressive war if it proved even temporarily true.

HOW TO WRITE? YOU TELL US!

by Wilkie Connor

Dear Editor: Several months ago I authored an article for a fanzine in which I stated, "... as long as Henry Kuttner lives, Abe Merritt will never die!" Naturally, there were disagreements. To those who called me all wet, I would like to call attention to a story called, "THE POWER AND THE GLORY" in

the December TWS.

This yarn has the beauty of description, the perfection of words, the depth of imagination and the loveliness of expression that were Abe's stock-in-trade. The yarn, sir, is another Kuttner classic.

"The Admiral's Walk," by Sam Merwin Jr., was top of the shorts. Speaking of Merwin, I have just read his "Knife in My Back," which is tops in murder stories. Versatile chap.

Glad to see Bradbury in the line-up. One never knows where Ray will turn up next! Good writer!

If you fail to get any acceptable yarns in your magazine contest, I would suggest you do as follows:

Have each of your regulars write an article on sf writing. This would give the fans a yardstick on which to measure the commercial rightness of their yarns. Most fans tend to write high school themes—not commercial fiction! The reason is they only know what they've been taught is a story. They've never discovered the difference between a story and a commercial piece of fiction.

That is why, in your recent contest and in fanzines, most of the yarns sound awful. Such a series of articles would serve to enlighten the guys and gals. And I feel they would stimulate the growth of a new crop of writers.

Of course, articles on writing are out of place in an all-fiction magazine. But how else could the proper audience be reached? Few fans read the writers' magazines. And such magazines are devoted to the whole writing field and therefore cannot simply cover such a specialized field as sf writing. Right?

TWS is already the best magazine in the field. If you keep on improving, what will you become? That is a problem for your science-minded fans to figure out! If anything reaches the perfect stage, yet keeps improving, what does it become?—Box 2392, West Gastonia, N. C.

We ain't perfect yet, Wilkie, by several very long-ranged shots, and never will be. No magazine, devoted to sf or to any or anything else, has ever yet attained a perfection recognized by such critics or an ever-critical public. All we can say is that we try to do the best we can with what we have.

You have brought up one of the problems of the ages in your request for new author tutelage. Hundreds, perhaps thousands, of courses on how to write are taught in our colleges and mail-order universities, to say nothing of hundreds of special annual seminars. The writers magazines you mention have thousands of faithful followers.

Yet we receive constantly stories from students of all these courses that simply don't have what it takes. Some of the authors are folk of undoubted high intelligence who have won great success in other lines, business, or professional. But, year after year, they study and they write and what emerges from their typewriters? We wouldn't know, but not stories.

The trouble is that ability to write even passably well as a second rater is a talent, not a reward for hard labor. Development of this talent in most cases is a long, tedious, highly exacting and all-too-often poorly rewarded job.

No author, for instance, has the temerity to believe that he can, by merely taking time to do it, remove an appendix, plead a criminal case before a bar or construct a can-

tilever bridge over a roaring rapid. Yet people without the slightest claim to a flair for tale-spinning insist that they too could be authors if they could only manage to spare a sufficient while from their business. This truism has long had us utterly baffled.

However, despite the fact a story must be dynamic and is therefore undefinable, there are rules which can be followed, though every rule can be and is broken upon occasion. They can be learned merely by reading good work. No school is really necessary. This goes for any type of tale, be it stf or love or western or sports or what-have-you. There is no basic difference between the ingredients of a science fiction story or any other.

So, frankly, we do not see how the course you suggest would be practicable or practical. What makes, say, a Ray Bradbury suddenly shoot to the top while his companions wallow in the ruck of amateurism? Or a Leigh Brackett? The answer, of course, is talent. And no amount of specialized study can bring the others up to the same level.

However, for those who wish to learn something about the principles of science fiction writing as practised and narrated by acknowledged experts, we should like to recommend a little book entitled *OF WORLD'S BEYOND*, recently put out by Fantasy Press of Reading, Pennsylvania and discussed in the *SCIENCE FICTION BOOK REVIEW* of this issue. It may conceivably prove of help.

LONG SITTING

by Paul Anderson

Dear Sir: Maybe you were born with a silver typewriter in your mouth, or you might just be lucky. How did you manage to get Kuttner, Smith, Wellman, and Bradbury to sit still long enough to get in the same issue? Very fine stuff this time. So, I'll rate 'em:

- | | | |
|-----------------------------------|------------|--------------------------------------|
| 1. <i>The Power and the Glory</i> | Kuttner | One shout |
| 2. <i>Quarantine</i> | Smith | One hoarse cry |
| 3. <i>The Irritated People</i> | Bradbury | One mild exclamation |
| 4. <i>The Timeless Tomorrow</i> | Wellman | One loud yawn |
| 5. <i>They Wouldn't Dare</i> | Mines | One grunt |
| 6. <i>The Admiral's Walk</i> | Merwin Jr. | One sigh |
| 7. <i>Piety</i> | St. Clair | One snore |
| 8. <i>Bergey</i> | Bergey | I still don't believe it! Excellent! |

As usual, your reader's column is the best one yet in any magazine, even if it is fouled up with all that useless yap by Carter, Jewett, Oliver et. al. How they do go on! May their typewriters have kittens. Your Poetry Corner is very nice, and who said the Muse is dead? I'm afraid, though, Mr. Editor, that your verse doesn't bear close scansion.

Presumably, you are a university grad, and thus know nothing about potree, like Ogden Nash. Further, you're probably the type which collects hot jazz, even Bop. As any music student can tell you, le jazz hot is not to be the music of the future.

An editor who writes in verse
Will soon travel in a hearse.
Who'll pity him, this lonely man?
For his verses will not scan.

He Bringeth Kuttner, George O. Smith,
But litten, brethren please, to thith:
We rate him thusly: "Also ran,"
For his verses do not scan.

His pen glows hotly, Is he frantic?
He is pedagogy and pedantic.
For offal verse he is your man,
For his verses will not scan.

In prose he turns the phrases neat,
But his verse has crippled feet.
He should go to school agan,
For his verses will not scan.

P. S. Do you know where I can get Bessie Smith's "Empty Bed Blues" and "Cake-walking Babies"?—6702 Windsor Avenue, Berwyn, Illinois.

We'll take the last first. Sorry, Paul, we don't know where to get the records in question, unless it be the Commodore Music Shop on East 42nd Street in old Manhattan. As for university, we're an ex, not a grad—having achieved a resignation at the end of our sophomore year. Jazz may not be the music of the future but it is a lot of fun—but preferably heard in the flesh, not on platters. And we take Ogden Nash indefinitely.

Hey, how about your own scansion in the first two lines, first stanza, of your ode? Reads like somebody put a hockey stick between your skates. However, here we go again—

You may assault our poetry
With verbal bullets farinacious
But not our scansion, my oh my
At rhythm, we're bodacious.

So take an anapaestic leap
Into the nearest limpid pondie
And never, never drive your jeep
Into your "Dear Ed's" spondee.

OUR LADY SPEAKS

by Linda Blake

Dear Editor: After considerable thought I came to the conclusion that I liked the December cover. Same goes for the October ditto. How did he ever do it? *THE TIMELESS TOMORROW* was the best story of the issue. But I have a question which no doubt will bring someone down on my neck. In the story Anne could see into the future the same as Nostradamus with the aid of a few articles given her by him. No mention was made that she was endowed with the gift of seeing the future and the impression the story gave me was that she was just an average pretty babe. It was mentioned that she had a slight intuition of the future but it's a known fact that all women have it to some extent. Right? Okay, if Anne, an average babe could do it, couldn't anybody do it with a few simple articles? Anyone got an old battered tripod and accessories for sale? Think I'll try it. Ha!

THE POWER AND THE GLORY was second but Kuttner has done better. Tears came into my eyes at the Marchioni illustrations. Where was Finlay? Sorry, but I didn't read beyond the first page of *QUARANTINE*. Pul-leeze give Smith a long long rest before he tries another.

The short stories were good and St. Clair was swell as usual. *PIETY* kept me guessing until the end. *THE*

IRRITATED PEOPLE had a new twist and I enjoyed it. Where was Sneydy this ish? Glad to see Clements and Anger still in there pitching. Zimmer—ah, eh's back again. I like her letters—maybe because I'm a fem too.—635 Schifferdecker Avenue, Joplin, Missouri.

In our doubtless limited experience we have found woman's intuition to be far more hindsight than foresight. And stop picking on Georgie Smith. He's all right, we tell you, all right!... Well, all right.

REBUTTAL REBUTTED

by Russell Cloggett

Dear Sir: I was a little disappointed in the rebuttal, in the December issue, to my comments on McDaniel's water space-ship. Frankly, I thought the boys would do a lot better. There were several highly controversial points in my missive, but they missed every one of them. As for the points they did select...! The letters seemed to fall roughly into three classes.

First, and in a class by himself, was Tom Pace, who seemed to have the only sound idea of what a construction project really involves. Thanks, Tom, you give me strength to go on.

Secondly, we have the boys who can't read properly. The original discussion was about changing the Sun's LIGHT into electricity. Gordon Slotzky says "Who says the Sun's HEAT can't be turned into electricity?"

Oh, brother! If you'll look back, Mr. Slotzky, you'll find that I suggested that very thing to S. Vernon to use the Sun's heat instead of light.

Third, we have the, shall we say "naive" group. This includes S. Vernon himself and also Henry Spelman III. They have the mistaken idea, evidently, that they are going to power a space-ship with photo-voltaic cells.

Incidentally, this is a good place to state that, when I write a letter to this department, I cannot possibly include every exception and every variation known to science. I expect the reader to have intelligence to realize this.

The space-ship question dealt with power, millions of horsepower—so much power that no one to date has been able to concentrate enough power to allow any object to escape Earth's gravity. This, despite the fact that every known form of energy, including atomic energy, is available to the designers. It is downright stupid to suggest anything like photo-voltaic cells. This cell has a very low output, as no one will deny.

Scientists, in experimental hookups, have succeeded in getting several kilowatts of power from banks of those cells. However, one ordinary electric heater, as used to warm a single room, can use more than a kilowatt by itself. Just one horsepower is $\frac{1}{2}$ of a kilowatt so it is easy to see how far short of the space-ship goal these cells fall. The whole idea is as ridiculous as trying to run the Queen Mary on a spring motor because a child's toy works that way.

Before I leave this space ship thing (permanently I hope) I'd like to come to Mr. McDaniel's defense on one point. Granted that the water as used would be expelled and lost, this problem could be solved very simply by carrying extra water. I believe that a space ship is being designed along those lines right now. (Using atomic power however) Ask Willy Ley, he'd be the one to know about that.

I'd like to say to Billie Lee Randolph, that she and my wife are kindred spirits.—7508 Harford Rd., Balto. 14, Md.

You ask Willy, Russ—we're done exhausted.

GREETINGS YOURSELF, GATE

by D. B. Thompson

Greetings, Editor: It has been a long time since I

wrote a letter to the Editor of Thrilling Wonder Stories—a long time, at least, as such things go in the Milli-Microcosm known as Science Fiction Fandom. But be assured that I have been watching with real pleasure the steady improvement of both Thrilling Wonder Stories and Startling Stories. The December issue seems to be typical. It is a very good issue indeed.

First place, I think, goes to George O. Smith's "Quarantine." In the second spot, I'm tempted to put Mr. McMerwin's "The Admiral's Fall." In fact, I think I will. It is thought-provoking and the writing is good.

The picking gets tougher after that. I think Wellman's Nostradamus tale gets third, though, mainly because Kuttner handled his interesting version of the "Paradise Lost" theme in somewhat too slam-bang a fashion. Bradbury gets fifth with his satirical "weaponless" war story. And Margaret St. Clair might have placed better than sixth, if she had left off that ridiculous first sentence. Why didn't you help her out a bit there?

Samuel Mines comes up with some fair writing on an ancient and hackneyed theme which is contrary to common sense. So the scientist destroys his super weapon. Has he accomplished anything? I think not. Somebody else is bound to make the same discovery soon.

"The Reader Speaks?" Well, yes, so he does—and much more intelligently than in the days of yore, too. All your fault, I'm afraid. Congratulations—Imperial, Nebraska.

We think you're mighty sweet yourself. Come to think of it, the first sentence of PIETY does sound a little like Cliff Nazarro off on one of his famed double-talk routines. Don't know how it got away, but it's a lulu.

"Frost tossed an avnil wrapper in the space erviser's part reducer."

Try it aloud yourself sometime—it's got everything but the old portestan.

JUST A LITTLE THING

by Tom Pace

Dear Ed: I have given up writing letters of "criticism" to editors who publish Kuttner stories. I just like to write in occasionally, more for my own sake, to sort of attempt to express all the pleasure and wonderment I get out of Hk's stuff, than in any hope of saying something I haven't said before. After all, there's no sense getting all lyrical, is there?

Enough said. If you stop printing his work, I'll personally lead the Semnole Nation on New York. Not that there's any danger of that—the new master of fantasy fiction. No disrespect to the memory of Merritt, but...

... Clair, Ray Bradbury, and Manly Wade Wellins come with three unusual, rather good (Hal Dig this Pace. Casual, no?) tales. Just goes to show that today's off-trail is tomorrow's accepted style.

Mines' THEY WOULDN'T DARE deserve more mention than this... that is the kind of story that you might find in the New Yorker. In fact, it should have been. No disrespect, Ed.

There's a mistake in my letter, concerning $\frac{1}{2}$ light-speeds. $\frac{1}{2}$ light-speeds, changes of direction, and all that... I'm sure Sigler fell all over himself writing in, and I shall be truly embarrassed next issue if his is printed and this isn't... a hint? For "speed relative to the planet would be $\frac{1}{2}$ C only if, etc., etc.," reads $\frac{1}{2}$ light speed... Paragraph 25, I believe.

Just a little thing, sorry. Lin Carter, and the rest of your rhyming fangs will drive you into becoming a humorist, Ed. You'll either end up doing an Ogden Nash, or steering a disc jockey show.

J. P. Conlon, who should know, certainly, appears to agree with Sigler's contention that m.g.s. would do the job on space ships... but do you think that a fire-control system could be developed which would enable .50-caliber guns to hit a space ship in the first place? I don't have enough authority to argue with you and I'll accept you, or Mr. Willy Ley, if someone can ring him in, as an authority, but, as you

said, Mr. Conlon, I'm still waiting for a ray weapon. Sigler and I argued about a ray vs. a Colt, once. Me, I'll take a "ray" . . . If someone has a practical weapon of this type at hand. In the meanwhile, however, I do not argue with gentlemen possessed of Colts. This is either enough or too much. So I'll quit here, with just one thought . . . what couldn't be done with Kuttner's fiction . . . given capital, all the resources, tricks and processes of modern moviemaking (including this three-dim screen I've heard of) and an inclination to make the first real fantasy movies. . . ? Kuttner, Merritt, Hammond, Padgett, Moore, Hamilton, Leinster, Brackett, Bradbury . . . how many? Give me a few billion dollars dear Godmother, and we'll see—1724 SW 11th St., Miami, Florida.

Ray-gun, phooey! Same to the Colt. Personally we never feel fully dressed of an evening unless we are packing an 18.1-inch cannon specially dug up for us from the sunken Japanese superbattleship Musashi, currently resting quietly on the bottom of the Sibuyan Sea. It's a handy sort of thing to carry around with you and it can shoot like crazy out of any pocket-sized battleship turret. Try one sometime.

SHORTY

by Jim Goldfrank

Dear Ed: That was a swell issue except for one thing. Saturn is dead. I guess he didn't have enough gravity pull with the President. Kuttner's story had a swell ending but the story wasn't up to par.

Quarantine was terrific, but it got too scientific. Aha!! Here's a clever one, THE IRRITATED PEOPLE or SOME DIRTY DOG PUT GLUE ON THE SADDLE. Yay 4 Ray.

St. Clair wrote a story she should know a lot about, being a St. Good story though, nice trick ending.

The rest of the stories were average except The Timeless Tomorrow. Manly, what is happening to you????!! And so, as the power sets, we sadly leave the island of Greater Breughler, the natives weeping into their XENO to see us go.—1116 Fulton St., Woodmore, N. Y.

You'll be weeping into your Xeno, Jimmy, if you don't learn to space better on your typewriter. Greater Breughler, our editorial foot!

WHAT—NO GOOD NOVELS?

by John Walsh

Dear Editor: The December issue of TWS contains a number of interesting features upon which commenting will be a pleasure. A very sharp upward curve in the quality of your magazine has been noted this year, and the year's last seems to have about hit the peak. 1948 should produce truly fine things if said improvement continues.

First item—the cover. I've never been one for superlatives, but let me say right now that this latest Bergey is the best—and sanest—cover I have ever seen on TWS. The colors are rather quiet, the choice of topics is excellent, same for the symbolism, and the face of Nostradamus has character. The whole thing is truly a masterpiece.

Item the second—The Irritated People. Bradbury is the cream of the pulp crop at the present time for a variety of reasons. Who else has shown such complete originality, a refreshing and nostalgic writing style and utterly delightful handling of characters, humor and climax? This story was light and wonderfully different. One hour early alarmclocks, those radios—Ghu!!

Then comes MWW's The Timeless Tomorrow. Well-

man had for some time seemed the essence of hack to me, and I couldn't guess why most fans liked him so. Then I acquired an old *Starling* featuring *Twice in Time*. "Classic" didn't do it justice. And his new novelet holds many of the qualities that made the famous novel great. Historical detail, fine characterization and all-around good craftsmanship are among them. More goodies like this one from Wellman.

The above stories were outstanding in a good issue, but none of the remainder was bad, by any means. The Reader Speaks was fine this time, and offered many good sizzling battles for the intrepid fan. I refused to plunge, being retiring by nature. I'd like to point out, though, that Paul Anderson who wrote the super physics letter can write—but good! How about a yarn from him? I got a kick (I should!) out of Andrew Gregg's little parody, a bit self-consciously, perhaps.

A look over the past year:

Good novels—None.

Good novelets—*Quest to Centaurus*, *The Big Night*, *Atomic!*, *The Darker Drink*, *Jerry is a Man*, *The Timeless Tomorrow*.

Good shorts—*Juke-Box*, *The Sky Was Full of Ships*, *You Are Forbidden!*, *Moon, Dark Dawn*, *Exit the Professor*, *The Irritated People*.

Top yarn—*The Darker Drink* by Leslie Charteris. Thanks for listenin'—and good luck!—54 North Main Street, St. Albans Vermont.

We'll have to stop a novel into print this year that will go on your list, John. What goes up in them thar granite hills anyway? Thanks, however, for the otherwise approving nod and the intelligent dissection. And good luck yourself.

COMPLETELY DIFFERENT

by Ray Brodt

Dear Ed: I have never read a story with such a plot as "The Irritated People." It was completely different. You should get Ray Bradbury to write more like it. I just can't forget or stop raving about it. If you could get some more stories like it in every issue, you would positively be the best magazine ever. As of now you have the best magazine in the stf field.

I rate the stories like this:

The Irritated People	100%
They Wouldn't Dare	95
The Power and The Glory	90
Piety	85
Quarantine	80
The Admiral's Walk	80
The Timeless Tomorrow	60

By the way, I think that Earle Bergey is doing a very good job. I realize that griping is the sign of appreciation, however too much griping might make Bergey change his style and that would be fatal both for the fans and for your circulation. Keep up the good work, Ed.—11 Surrey St., San Francisco, Calif.

Well, we'll try, Ray, and thanks for the puff. As for Ray Bradbury's story, it was one of those happy things where a fine author gets hot on a fine idea. We'll certainly run all such stories we can get but, alas, they only come along every so often.

ANOTHER VIEW

by Andrew Gregg (IV)

Dear Editor: I've always had the theory that the people who read this mag think in such a fashion. "This author wrote a story that's only four pages long. That means he was too lazy to write a longer story. For this reason he didn't have a complicated plot, nor did he spend much time on it. Therefore no short story is any good."

"They wouldn't dare" is one of the best sf (or stf) stories I've ever read. It is one of the very few that have a moral! Most of the stf stories that come out these days are all wrapped up with BEMs, space-ships and ray guns. Here's one that uses science, not as the main plot, but only to make possible the situation.

The dream idea is old, but there's nothing else that could be used, and if Dr. Bartok had awakened with a sling in his hand I don't know what I would have done to you, dear editor, and to Mister Mines, but I know what I would have liked to have done!

The cover is wonderful! Not the art, but it's not a BEM, not a beautiful nude, not the moon, but a real, honest-to-goodness man!

Mr. Anderson's letter said that your scientific background is shaky. That's a laugh! It's not shaky, it's nonexistent! This guy better.

"The Admiral's Walk" is tolerable. "The Irritated People" is intolerable! Bradbury is wonderful, but he fell flat on his posterior with that story. A funny stf is the best thing in the world, but that wasn't funny, unless you want to classify Laurel and Hardy with Fred Allen.

"Piety" is typical of stories in TWS. It's interesting, insane and not too good.

"The Timeless Tomorrow"—HOORAY! One of the few stfs that don't happen in the future? Wellman turned genius when he picked Nostradamus for his subject and the way he handled that plot was something that appears all too seldom in the pulps. I must get to know this guy better.

I'm glad to read that Kuttner is using telepathy when it could be avoided with a little work. Rhine's experiments at Duke, Sinclair's mental radio and Seabrook's experiments proved that it might be possible, if not that it can definitely be done. Rhine's experiments were too stiff and confined but Upton Sinclair's mental radio proved to some people that it's possible. It left solid doubts in the minds of everyone else. Seabrook's experiments either partially proved that it's possible to look into the future or that a super-sensory communication with other humans and animals is possible.

"Quarantine" is interesting, but the quarantine that gave George Smith (what a unique name!) his title was too complicated and raised a lot of doubts and suppositions. It detracted from the rest of the story. I found myself thinking of ways the metal could have reached other metal instead of following the rest of the story.

Here's my order of the stories. 1. "They Wouldn't Dare." 2. "The Timeless Tomorrow." 3. "The Power and the Glory." 4. "The Admiral's Walk." 5. "Quarantine." 6. "Piety." 7. "The Irritated People." Really too bad about Bradbury's story, he can do so much better. Its got that wonderful Bradbury touch, but it isn't enough.

I would like to hear from people who like to read William Seabrook's books. And please, if you stick your head in the Bon's mouth and print this, get the address right.—221½ Stanley St., Chippewa Falls, Wis.

We were sorely tempted to list your street number as 221¼ Stanley Street, but did not succumb. For which you are welcome. Glad you liked Wellman's novelet but am a little puzzled by your reaction to the Bradbury opus. We still think it was a riot. Now go back to Billy Seabrook until our next issue rolls around.

Oh, and incidentally, thanks for standing up for the short story. Such a work is a lot harder to write than a so-called novel. It demands far greater craftsmanship in both plotting and execution—writing, that is.

BETTER LATE? PERHAPS

by Gene A. Hyde

Dear Editor: I seem to be a little late this time. I hope that I am not too late. First of all I'll get the

stories out of the way.

"The Power and the Glory" takes first place this time. Kuttner, as usual, turned out a really fine yarn. "Piety" and "The Irritated People" tied for second. St. Clair digressed a bit from her usual style but it was still good enough to tie Bradbury and that's saying quite a bit.

The others follow in this order: "Quarantine", "The Timeless Tomorrow", "They Wouldn't Dare", and "The Admiral's Walk". The last was last simply because it was another past-to-present story. "The Timeless Tomorrow" was good but not very interesting. It seems to me, from what I've read about Nostradamus, that the story didn't follow his life too closely. Or was it supposed to?

ATTENTION ALL THOSE WHO WROTE IN TO ASK, "WHAT IN THE HECK IS SOMA?"

Be it known that I have found the answer. Ah, yes, a college education is a wonderful thing. I just happened to pick up one of those text books the other day (quite by accident you understand) and, while I was leafing through it, looking at the pictures, I came upon a description and definition of Soma. It seems that Soma was a drink of the old Aryan gods.

The title of the book was "Procession of the Gods" by Atkins and Braden, and they had this to say about Soma: I quote

"Soma is the sacrificial drink dear to gods and men. Some scholars think it was not alcoholic, because it was prepared three times a day and would hardly have had time to ferment, but the glowing hymns in praise of it could hardly have been sung out of a purely poetic imagination. If it were not fermented, it was a herb, juice of a most potent character. Unhappily—or happily—at the secret of it is lost these thousands of years. . . ."

Now that I know what the stuff is I think that I could do with a drop or two right now—how about you?

By the way, does anyone have any ideas on how to go about rotating a cube on all three axes simultaneously?—915 North Main St., Bloomington, Ill.

This is really too much, Gene. So that's what Soma is! Confidentially, Mrs. St. Clair has a sound grounding in the classics and it occurs to us that she might—just might, understand—have known the score all along. It seems to be far too much coincidence. Or are we being kidded.

As for your other gem of a thought—it seems to us a sort of cubic gyroscope would provide the only impossible answer. Something like that anyway. Now go and dig up Whost.

THAT IS NOT US—IT'S GRANDPAPPY

by Hugh McInnis

Dear Ed: I took one look at the Dec. issue, and frankly I didn't know what to say. What's happened? Has Bergey finally snapped under the strain? Do you realize that this is the first time since before the Spring, '46 (that's as far back as I can positively say) that there hasn't been a girl on the cover?

As a side issue, who is the benevolent looking gent with all the brush on his face?

Can it be Ye Editor?
On the inside—well, here's another good ish. I wouldn't even want to start them. I like Marchion. He seems to be one artist who reads the stories he illustrates (old fashioned idea, that).

The Reader Blurs was good. Just to be serious for a while, TRS and Ethergrams are the only letter columns I read, though I take almost all of the sf mags. —c/o Y M C A, Warren, Ark.

No comment but thanks. We answered the snidery in the headline.

DEAD HEAT

by Arthur H. Rapp

Ed., you wonderful person: "NO!" I shouted, "It can't be! Something must be wrong with my eyes! Where's the gal? Where's the BEM?"

"Boss, you gotta write dear ole TWS and give Bergey a verbal pat on the back," Roscoe insisted. (Roscoe's muth pet beaver; only one in th world who's a stfan.) "A pat on the back?" I echoed, "Bergey deserves a medal! This December ish—it's THRILLING! It's WONDERful! It's HISTORY-making! Roscoe, this calls for a celebration. Take the afternoon off!"

"Gawsh, thanks," said Roscoe, immediately sprawling comfortably in the shade of a nearby birch and beginning to leaf through TWK. I could hear him muttering ecstatically to himself:

"Seventeen pages of The Reader Squeaks! Unbelievable! (Note that, like all true fen, Roscoe reads the features before the stories.) Smith, Kuttner, Wellman, Bradbury, St. Clair, Mines—and Merwin himself! I must be dreaming. Kick me, boss. Wake me up before something spoils this lovely vision."

I trod firmly on his broad flat tail with my hobnails. He sank his incisors into my ankle. We were both awake! It was TRUE! TRUE!—TWS has sprung a perfect ish on us!

For the first time in our stf careers, we couldn't rate the stories—they all come out in first place! Abrupt change of subject: Has anyone stopped to consider that, if Bud Gregory eliminates all friction in his fellopy, the nuts would fall off the bolts, the fan-belt would slip, etc.—and it was such an ingenious idea, too. Sad, sad.

Wonder how many readers noticed the initial letters of those paragraphs on page 60?

On to the missives!

Retort to Pace: See what happens when you ask for an egg in your beer? Sometimes you get me. . . .

Anderson, you lug! I covered two dozen sheets of paper with equations trying to solve your first equation for "v" to see if your math was correct. I'll take this up with you when I complete Algebra I. Never could handle them durn radicals.

Billie Lee Kennedy (federal)—that last paragraph! GAHHHHH! Notice: I hereby announce my membership in Jaclern's C.S.F.K.F.O.O.L.C. (Clements' Society for Keeping Females out of Letter Columns). I repeat: GAHHHHHHH!

Fans! Let us all join hands and jump up and down on the back of Wigodsky's neck. Cantehs do ANYTHING but list the stories, Mike!

Jim Kennedy—I got a better idea for a contest: Why not have all fandom vote on which was the most artistic false-teeth stickum ad ever run in a stfmag?

What, Roscoe? The interior artwork is improving too? Yep, so 'tis. Will wonders never cease? THRILLING WONDERS, never will, I hope!—3120 Bay Street, Saginaw, Michigan.

McInnis talks about the man with the brush on the December cover—and now you come up with a pet beaver, Arthur. Could that be coincidence? Anyway, it's nice to know we made somebody completely happy.

MORE BERGEYBOO

by Bob Norton

Dear Ed: Sir, I am astounded and amazed. Nay, I am thunderstruck. The cover on the Dec. TWS. . . . Did you look at it, or is it someone else's slip? Oh, surely sir, it is a slip for Lol. I see no curvaceous babes, nor one stinking solitary little BEM. Let the scuffers say no more against Bergey. The cover is magnif. . . but terif.

The cover is what really prompted me to grace the editorial orbs with this charming little epistle but I might as well go on and give you this person's view of the stories.

Y'know, I liked the shorts and the novelets better than the featured yarn. It seemed to me that the novel would have made a much better poem. No kidding. All that color and music. . . it should have

been described in verse. The best one this time, I think, was Wellman's The Timeless Tomorrow. I liked that very much. Its funny how an author can turn out a yarn fit to be included in the Hall of Fame in Startling right after he slaps poor suffering fandom in the face with driving corn like that infamous Cap Future tale in Startling. However, let the dead lie and here's hoping Manley Wade turns out more of the stuff that makes a great stf yarn.—110 North Downing, Seaside, Oregon.

Why authors are uneven has disturbed far more august intellects than your own machine-tooled product, Beb. The answer, of course, lies in the fact that no man, drawing upon his own subjective mind for a story, can have any more than the longest of long-shot chances of appraising its actual worth.

It seems that virtually everything we do in existence depends upon the objective mind—so when a man (or woman) begins to draw upon the relatively little-used subjective mind, which is not subject to outside check-reining, he is taking a big gamble. There is simply no way he can step outside of his own mind to see what is coming out of it. Hence the unevenness you find so baffling.

All the above aside it is baffling.

YOU'RE MY DESIRE

by Frank Evans Clark

Dear Editor: I wanted to write to you after the appearance of the Oct. issue of TWS to thank you for all that you've done to improve the mag, but I was in the hospital at the time and couldn't find the time. Now that the Dec. issue has arrived, the desire has cropped up once again so here's the letter you might have gotten sooner if I hadn't been holding down the place of honor in one of our local hospitals.

I'm one who does appreciate the things you've done to improve TWS and SS. I haven't liked all the stories or illustrations you've been running lately, but that's merely a matter of individual preferences and dislikes. It's evident to everyone that the level of the stories and the standards for the pictures have risen considerably in the past year.

I want to say "Thanks a lot for some swell fantasy reading material." I think all your readers realize the great advances you have made; even your most scathing critics. I think those guys just have to gripe or they aren't happy. I'm the same way about some things but, happily for you, not stf.

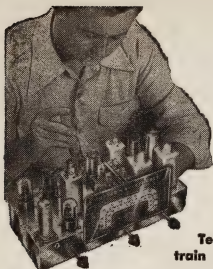
Kuttner started the Renaissance. I only hope he's still around to see the finish, some fifty years hence. Shall I comment on the current TWS, the thing that started all this?

The cover is wonderful, especially for Bergey! The last one was too. I hope you'll keep this up and that reader response will persuade you to give up the triangle cover scheme. I like the new title print on the cover. Can't wait to see it in blue, green, or black! The pics are kind of a let-down this time. In the readers column, you say (quote), "Perhaps we'll hear from others on his (Marchioni) illustrations for The Power and the Glory this issue's novel. We think he did a good job on it. Let's hear your opinion, also tell us whom you'd like to illustrate our future novels." Lord, is that asking for it!

Listen ed, Marchioni is the only artist you've got who has never drawn at least one passable illustration! Please, get him to draw for your western mag. You must know by now that the stf fans don't like his stuff. He's probably a swell guy and more-than-competent in other fields, but stf fans don't like his work at all!

As for the artists we'd like to see, my votes go for

(Turn to page 134)



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Finlay, Lawrence, Aslarita and, for fantasies alone, if you could please get him, Hannes Bok.

The contents look fair this time. Haven't read the stories yet (I can hear some fans saying, "Well, then why are you writing?") "Cause I'm impatient, friends. Won't be able to find time to read the danged mag for a couple of days and I wanted to say something about the new improvements first), but (lost the sense of the sentence?) I predict this is the way they'll shape up after the dust has cleared; the Kutner, Bradbury, and St. Clair stories will be good; the Sam Merwin, Sam Mines and George O. Smith (he never should have written those Venus Equilateral stories. They've prejudiced me) stories will be poor and Wellman is liable to fall either way.

The best news in the issue was buried deep in the letter column (as it was last issue). "His (Bradbury's) stuff will be appearing more often in these covers." There's another boy who can write! How about asking him for a novel for Startling?

Enough for now, maybe later I'll be back with a list of ten favorites, some poetry, and a little more fuel for the Lovecraft bonfire.

For the ghouls who may be wondering why I was in the hospital—it was rheumatic fever. I would have been at Harvard right now if it wasn't for that. *%*%\$\$.

Are there any New Orleans fans who'd like to correspond or any re-bop fans who'd like to argue among your readers?—113 Central Avenue, Baldwin, New York.

For some of the those cracks, Frank, you should have been at Harvard. You deserve no more. Somewhere amidst the preceding notations you'll find Ye Ed's college mentioned and understand how unkindly we make the remark.

Seriously, you've given us a couple of thoughts—especially about Bradbury—if he wished to undertake such a lengthy chore. Well, there's only one way to find out.

PTOOIE!

by Jordan Green

Dear Ed.: Just finished reading the December issue of Thrilling Wonder Stories, and would like you to explain the reason for allowing Bergey to put your picture on the cover??? Bergey sure does like to paint BEMs! And so true to life, too.

Kuttner's Power and The Glory was the best in this ish and the first bit of Fantasy that I have ever enjoyed reading. The Paradise atop Hill 700 is a good deal like the Fools' Paradise some of us live in here on Earth—it turns to nothingness in our hands.

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The Timeless Tomorrow was a good story and worth the reading, nevertheless, another fantasy.

They Wouldn't Dare—Mines.

If the scientists of today were as farseeing as John Barick, there might be less wars—but that is open to debate.

Quarantine—Smith.

A good story—entertaining and of reading worth.

The Admirals' Walk—Merwin.

Another Fantasy!! What are you doing, Ed, dropping STF for Fantasy?????

Three in one issue!! PTOOIE!!

Pleety—St. Clair.

Liked this story fine. Margaret (Miss or Mrs?) St. Clair knows whereof she speaks. No one ever dies who lives in your memory, but will live as long as memory lasts.

The Irritated People—Bradbury.

I know just how these people felt. I feel the same way when I find Fantasy in TWS or Startling Stories. Would sometimes like to use the alarm clocks myself—on Ye Ed.

The Reader Squeaks—Ye Editor.

Always read this first to see if my letter is in it, and if it isn't I read it anyway just for spite. My letter was not in it, but for some unexplainable reason, it was still good, and really enjoyed the letters. Raj Rehm is still alive but have not written in to the Reader Speaks as he seems to have found a New Attraction. TSK. TSK. TSK.

Nertz to the Bud Gregory critics. The Gregory series are worth reading and have found each one interesting.

Dan Wilhite is all wet when he says to try looking at a pressure cooker. I tried it and the darned stuff flew all over the kitchen, burning both my hands and sending the cooker-lid clean thru the window pane. Where does that guy get his ideas, anyway???

All in all, the Dec ish of TWS is, as usual, a crack-crack for good works.—1139 East 44th Street, Chicago 15, Illinois.

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Hokay, baby, and thanks. But aren't you being a trifle rugged where fantasy is concerned? Every piece of fiction, no matter how realistically it is couched, is fantasy. If, occasionally, we let the authors' imaginations rove beyond the realm of daily existence, we don't see why any one should object.

Once again, may we remind you that TWS and its companion, SS, are science fiction magazines. If you want science alone, you'll have to dig it from such dull things as textbooks.

GOOD HEAVENS—A MARATHON BEM!

by Peter Leyva

Dear Editor: Thank a lot for printing a couple of my letters in previous issues of *Thrilling Wonder Stories*. However, this letter is not intended to be a paean of thanksgiving to ye ed nor yet is it motivated by that curse of human vanity, subtly camouflaged, or otherwise, that leads the average writer to desperately attempt to see his "stuff" in print.

Nay, O Mighty Welder of the Blue Pencil and Guardian of the Editorial Waste Basket, none of these motives are responsible. This is a letter written in defense of the much maligned, much derided, and much insulted BEM!

To those merry and quaint readers who monthly hurl vitriolic insults and sprightly quips—all at the expense of the rather defenseless BEM whose fate has already been plotted and sealed in each tale—to those smug and self-righteous ones this epistolary petard is explosively directed.



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To these would-be St. Georges it is respectfully advised that they first go out and slay a few dragons and thus earn the right to slander and ridicule the poor BEM with their ribald jests, their clever bon mots and their deft witticisms.

The BEM, like death, taxes and untrimmed edges, has always been with us for lo! these many millenniums, and when the above unholy trinity has at last been canceled out, 'tis dollars to doughnut guns that the BEM will still be happily cavoring and gamboling about.

Down through the ages, in art and in story, we find the eternal BEM in some form or other well portrayed and ingeniously characterized. From the first crude prehistoric mammoth's portrait ambitiously scrawled and scratched on the interior of a cave-wall by some shaggy Neanderthal character—through to the mythological Medusa, Cyclops, etc.—down to Capp's Lena, the Hyena, modern futuristic art, or even T.W.'s interior whack's museum of BEM—my interior art we find ye portraits of ye BEM well illustrated and advantageously represented.

Now, then, this being so, why do ye smug ones continue to desecrate and blaspheme the ancient and fair gonfalon of the BEM? Ye know full well that there could have been no art without the BEM!

And in literature! What has been the fate of the BEM in literature? Gads, what would the world's

[Turn page]

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literary works have been without the aid of some evil BEM to spice up an otherwise dull chronicle? 'Twould have been like the famed ova minus the savory fried hind quarters of the Porcus, like Chad without Oliver, like a cover without Bergey, like hasen without pfefer.

From the first recorded BEM in Eden, which slyly deprived Adam and his frau of immortality, to the medieval dragons, wizards, witches and their conjured incubi, down to the latter-day Draculas, Fagans, Frankensteins etc. ad infinitum—through to present day Science Fiction's happy contribution of spatial and planetary monsters and cruel, clanking, robots, we find the BEM still grinning in the knowledge of his firm establishment in man's literature.

Again, this all being so, how can ye pedantic, self-imagined sophisticates and anti-BEM characters affectively lampoon and mock the ancient Order (or disorder) of the BEM?

What difference is there between the bold knight of yore, jousting with the fiery dragon, and Space-warp Joe, matching ray blast against the foul fangs of the Martian spider—BEMS? Or better yet, what difference is there between Columbus, daring the serpentine BEMS of the Atlantic, and the scientist, facing the infinitesimal BEMS of the microscope?

Whether said BEM is portrayed in human form like the well known mustachioed, top-hatted, cane-twirling fellow leering toothily down on the screeching gal tied to the inevitable railroad track—whether 'tis some mad scientist or evil creation of his—or yet, even if 'tis some gaseous intellect from Planet X—whether the BEMS are these or others, it matters not—nay! merely that the tale contains a BEM—for firstly and primarily, the BEM's the thing!

Perhaps it is because I am comparatively ignorant in matters scientific that I dare champion the cause of the BEMS against the learned legion who would de-romanticize Science Fiction into a physics text book.

In truth, I am woefully lacking in knowledge of the intricacies of physics, calculus, thermodynamics etc. It is not quite sure in my mind whether atomic fission means an improvement on the art (?) of catching fish

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with the aid of a dynamite stick or if it means something else. And as for a logarithm, to me it sounds like a new kind of swing tempo.

Possibly my only claim to scientific fame is that once, as a babe and before I ever heard of the force of gravity, I discovered its phenomenal effect in the course of being dropped on my cerebellum. Therefore in this field I might have rightfully said to have pioneered without the aid and comfort of Newton's learned observations.

But that is neither here nor there nor even thither and a mon's a mon for a' that and a' that. . .

Therefore I shall sum up all the above by stating that though Necessity may be the mother of Invention, still the BEM was the midwife.

Well, the fray is o'er and 'twas a goodly bout. I've always hankered to champion the cause of the underdog, or in this case, the underBEM and I've finally got it off my chest.

Well, good landlord, I have enjoyed my little stay at the merry hostelry, "The Reader Speaks" but now the hour grows late and the log burneth low. One last wassail ere I effect my departure, good landlord. Oh, yes, I have one last suggestion as I go—the slogan of "The Reader Speaks" might well be, "Abandon Hope, All Ye Who Enter Here."—215 South Victoria Avenue, Atlantic City, N. J.

Or, to make an added "last" suggestion, we might alter your slogan, Peter, to read—
[Turn page]

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"Abandon sentence structure, all you who utter here."

YEAH HE'S IN AGAIN

by Michael Wigodsky

Dear Sir: This issue is an alltime high in novels and an alltime low in short stories.

THE POWER AND THE GLORY is the best story Kuttner has ever written, it even surpasses LANDS OF THE EARTHQUAKE, which up to now I considered the best fantasy I had ever read. LANDS OF THE EARTHQUAKE was just a little better than Merritt, but THE POWER AND THE GLORY surpasses any other story that I have ever read, including all the so-called classics. Only one thing—to me, at least, it would have been better if Brann had remained a dreadful force, instead of having the schizophrenia dragged in. Is Kuttner a schizophrenic himself?

QUARANTINE is such a surprise that I'm almost inclined to admit that Smith can write a good story. THE TIMES TOMORROW, by old Captain Future Wellman, is a good time travel story, not so far off the beaten path that the readers would stop buying the magazine.

THEY WOULDN'T DARE is good but not stff.

THE ADMIRAL'S WALK—the admiral can walk his feet off.

PIETY is good, but not up to Saint Clair's standard. Ditto for THE IRRITATED PEOPLE.

Conner: I've only read one Lovecraft, but I liked it. Jewett: Vitrol at vive o'clock.

Oliver: My hero! I've heard a lot about JOKE and Chad. I like Chad, but JoKe, when relieved of an opportunity to be corny, is merely tedious and his views on stories are distastefully space-opera.

Robert: I don't know, I read anything.

Slotsky: As dull as a gull (see, that is).

Van Van, Van Couvering: Aw, now, I'll yell PUT-

RID for you.

This is a poem:

All roads lead to Rome.

McInnes: Write a short-short-story in 99,000 words.

Randolph: Richards

Woolston: Nats to you.

Spellman: Windbag.

Conlon: "

Anger: Angry.

McDermott: Fern from Saturn.

Claggett: Windbag!

Hyde: Jackal!

Anderson: x equals Anderson in this case.

Wilhite: Blue pencil, red pencil, ever heard of a pencil with blue on one end and red on the other?

Sigler: Ohno!

Clements: I'm back. Don't you hate me?

Wigodsky: Benedict as in Arnold, you dope, and I'm twelve now. I'll send you my birth certificate.

Kennedy: And accept the next novel that's sent in, too.

Gregg: Dear Slur: I'll annihilate you.

Diamond: Nice.

Now for the last issues of TWS. This year favorite stories, one from each issue:

THE PLEASURE AGE, Cahill

THE RELUCTANT SHAMAN, de Camp

THE SKY WAS FULL OF SHIPS, Sturgeon

NOON, Hastings

THE DARKER DRINK, Charteris

THE POWER AND THE GLORY, Kuttner

This year is getting off to a good start, what with Walton, Hamilton and Fitzgerald.

In short, a superb issue—306 Evans Avenue, San Antonio, Texas.

Somebody, my laddy-buck, is going to put arsenic in your coffee if you keep up this sort of thing.

So—that does it for this trip. All in all, if not the most brilliant collection of epistles we have had, a lively and representative one. Nice work, ladies and gentlemen, and please do keep them coming. We can take it and even like it. Adios for the nonce.

—THE EDITOR

SCIENCE FICTION BOOK REVIEW

GREENER THAN YOU THINK by Ward Moore, William Sloane Associates \$3.50.

THIS novel of the earth, or at any rate animal life on that much-plagued planet, destroyed by a catalyst which causes Bermuda devil grass to grow in anything and defy all efforts to stop its growth, has created something of a minor sensation in book-reading circles. Where science fiction is concerned this sensation should be anything but



minor. As a maturely conceived and executed, beautifully written and simultaneously subtle and sledge-hammer satire based on entirely credible pseudo science it is an absorbing, provocative and frequently terrifying novel.

Its narrator, a door-to-door Los Angeles salesman named Weener, has the fortune, good or otherwise, to answer a request for a salesman put out by a fanatical spinster scientist named Miss Francis. Miss Francis has developed a formula for increasing the growth and fertility of plants.

Wishing to make his demonstration as effective as possible, Weener, against Miss Francis' explicit instructions, decides to use it to prettify a weed-infested front yard. Within a matter of days the panic is on as the weed develops into a fearsome growth which simply overruns house, yard and neighborhood.

Hired as a special reporter by a Los Angeles editor of remarkable Johnsonian vocabulary, Weener is on the spot as the weed-run-amok swallows up Hollywood, Los Angeles and a large chunk of the southern West Coast. Checked again and again, the weed invariably achieves new mutations which enable it to continue spreading.

In the meantime Weener, through a series of absurd but entirely believable financial transactions, becomes the great chief-financier of a steadily shrinking habitable globe. Finally, of course, even his last retreat in

[Turn page]

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England is overwhelmed as Miss Francis' final effort to check her Frankenstein monster fails and his memoir, cast on the sea, is all that is left.

Luckily for those of us who have read **GREENER THAN YOU THINK** and those many thousands who should read it, the memoir seems to have escaped the all-devouring devil grass. This one is really a must for fans and anyone else!

VENUS EQUILATERAL by George O. Smith, Prime Press \$3.00.

A COLLECTION of ten novelets built around life aboard an artificial planetoid carefully placed in space to operate as chief communications relay station between Earth and Venus in a future that may or may not be far distant. Such thin thread of continued plot as the series contains has mostly to do with the efforts of Station Director Dr. Don Channing to promote his planetoid and its self-contained laboratories for the good of humankind despite the equally tireless and vigorous efforts of an interplanetary business magnate of familiar type, Francis Burbank, to destroy him.

Burbank, appointed director over Channing's head in the opening story, is forced to retire in disgrace when his lack of scientific knowledge all but permanently scrambled interplanetary communications. Unable to recover from his humiliation, he sets out on a course of revenge which leads, by the end of the tenth episode, to his all-around destruction.

But plot, as such, is a minor element in these stories. Mr. Smith has been able to give full rein to his rather pyrotechnical genius for cooking up improbable gadgets whereby Channing, in every episode, foils the increasingly villainous Burbank. Frankly, after the first five or six episodes, we found it hard to maintain interest. We knew that somehow, through some other gadget, virtue was going to triumph. And Burbank becomes simply too nasty for words.

If the book were cut in half it would be a lulu. As it is, it presents plenty of imaginative entertainment despite the monotony of its diet. Printing, typography and binding are excellent, illustrations only fair.

EDISON'S CONQUEST OF MARS by Garrett P. Serviss, Carcosa House, \$3.00.

DREDGED up from the 1898 files of a daily newspaper, according to the introduction by Dr. A. Langley Searles, Ph. D., this volume is a somewhat hastily conceived demi-sequel to H. G. Wells' War of the Worlds, which concluded serially in a national magazine some six weeks earlier.

It tells of how the world recovered from the Martian devastation only to discover too-familiar signs of a recurring invasion from the red planet. Something had to be done and obviously Tom Edison, then the one-man flower of American popular science, was the lad for the job.

The world (and a quaint old world it is from today's viewpoint) unites to a man behind him and, armed with a disintegrator ray in hastily got-up space ships, Menlo Park Tom with a picked crew of scientists including Roentgen and Lord Kelvin, takes off on a counter invasion to save Earth.

Ultimately, after many hair-raising adventures, among them the rescue of the last survivor of the pre-deluge Tellurian slaves (inevitably a beautiful wench who takes time out to explain how pyramids and Sphinx of Ancient Egypt were built by invading Martians), they manage to flood Mars in its own canal water and return, decimated but serene, to Earth in triumph.

It is, perhaps, unfortunate that such a legitimately ambitious project as Mr. Serviss' book should read so much like a Sunday supplement serial of its period. But as a curiosity it is immense good fun and its publishers have dealt with it lavishly and in exactly the right tone, especially where the illustration

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tions are concerned. According to a minor credit line they are redrawings of the newspaper originals and are properly hilarious and unreal.

EDISON'S CONQUEST OF MARS, especially in its sociological overtones, is not only hilarious but a fortuitously preserved forty-nine-year-old oddity. If it today gives rise to more chuckles than gasps, who cares? We enjoyed it all the way.

OF WORLDS BEYOND, The Science of Science Fiction Writing, Fantasy Press, \$2.00.

THAT up-and-coming fantasy publisher, Lloyd Arthur Eschback, has here compiled a collection of essays on various angles of science fiction production by such recognized authorities as Robert A. Heinlein, John Taine, Jack Williamson, A. E. van Vogt, L. Sprague de Camp, Dr. E. E. Smith and John W. Campbell Jr. Mr. Eschback, a veteran author himself, has contributed thoughtful introductions to each article as well as a one-page preface to this interesting little volume.

Of the subjects treated, which cover the subjective part of science fiction with commendable thoroughness, we derived the most from Heinlein's study of "speculative fiction," Taine's "Writing a Science Novel" and van Vogt's study of "Complication" in the sf story. But the other articles were all of a merit to give the entire book an even excellence of tone.

Like the other volumes reviewed this month, this product of **FANTASY PRESS** rates nothing but praise for format and typography. All in all, it has been a banner session for this critic, both in reading and reviewing. We only hope the field continues as lush as the Bermuda devil grass of **GREENER THAN YOU THINK.**

—THE EDITOR.

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The Enemy Is Here

A Message to All Americans

By Kate Smith



I UR orators, journalists, and statesmen have taken "preparedness" as a favorite theme these days. But little do the people of America realize that our greatest enemy is already entrenched within our gates. I am referring to heart disease, this nation's Number One Killer. As a call to action to

defend the health of our citizens against this enemy, the American Heart Association has designated the week of February 8-14, 1948, as National Heart Week.

Let us not think of this as "just another week" or confine our cooperation to certain space on the calendar. Let us realize that the defense of our country depends first and foremost on the health and well-being of all the people of these United States.

As a nation we have been alarmingly complacent in the face of this leading public health problem. Every minute of every twenty-four hours in this nation, some man, woman or child dies of diseases of the heart and blood vessels, which we commonly lump together under the general term, "heart disease."

The victims include men and women in the prime of their lives—their forties and fifties—the years of their greatest fulfillment and productivity. These are stricken by hyper-tensive heart disease and coronary thrombosis. In them the country loses many of the best brains, the most experienced minds of today, in an era when men and women of ability and vision are so sorely needed. I am speaking also of children who in every nation are the hope of tomorrow. Rheumatic fever and rheumatic heart disease cause more deaths among American children than the next five leading causes combined.

The important question is: What are we doing about this enemy on the home front?

To date the answer is appalling: We are doing very little. In terms of money alone, the American public spends least for the fight against this greatest killer. In other avenues of attack also, we are only making a start.

But the plan of attack has been formulated. The American Heart Association—located at 1790 Broadway, New York 19, New York—whose members include America's leading heart specialists, urges every conscientious citizen to enlist in the war on heart disease.

Medical science has made great progress in diagnosis and treatment. But many thousands of men, women and children do not get the benefits of the latest advances in this field. It is our duty, in defense of our country, to help the American Heart Association to bring the best that medical science has to offer within reach of all Americans.

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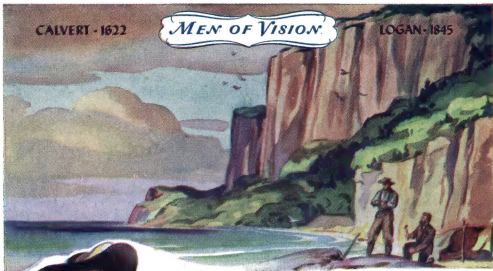
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